

## Relevance of Body Dysmorphic Disorder in a Facial Plastic and Reconstructive Surgery Clinic: A Retrospective Study

Shahnawaz Anees<sup>1</sup>, Vidyapati Choudhary<sup>2</sup>, Ajoy Kumar<sup>3</sup>, Radha Raman<sup>4</sup>

<sup>1</sup>M.Ch Plastic Surgery, Department of Plastic Surgery, Patna Medical College and Hospital, Patna, Bihar, India

<sup>2</sup>H.O.D. & Professor, Department of Plastic Surgery, Patna Medical College and Hospital, Patna, Bihar, India

<sup>3</sup>Associate Professor, Department of Plastic Surgery, Patna Medical College and Hospital, Patna, Bihar, India

<sup>4</sup>Assistant Professor, Department of Plastic Surgery, Patna Medical College and Hospital, Patna, Bihar, India

Received: 27-08-2023 / Revised: 17-09-2023 / Accepted: 10-11-2023

Corresponding Author: Shahnawaz Anees

Conflict of interest: Nil

### Abstract:

**Background:** BDD is a mental health disease that causes obsessive focus on tiny or non-existent physical faults. BDD patients often seek cosmetic surgery to repair perceived faults, which can lead to dissatisfaction and repeated treatments. The aim of this study is to investigate the prevalence, clinical manifestations, and impact of Body Dysmorphic Disorder (BDD) among patients seeking cosmetic and reconstructive facial surgery at a Facial Plastic and Reconstructive Surgery Clinic.

**Methods:** A retrospective observational study involved 54 Facial Plastic and Reconstructive Surgery Clinic BDD patients. Patients 18 years and older who got BDD surgery were included. Clinicians employed descriptive statistics to summarise surgical procedures, postoperative complications, patient satisfaction, and BDD-related symptom changes. Clinical outcome connections and differences were identified using appropriate statistical techniques.

**Result:** The study population had a mean age of 32.0 years with a 60% female, 40% male gender split. Rhinoplasty (45%), otoplasty (20%), chin augmentation (15%), and face rejuvenation (20%) were performed. After surgery, 12% of patients had minor problems that were treated. Interestingly, 85% of patients were satisfied with surgical outcomes, showing significant BDD reduction. Results showed a significant decrease in BDD-related symptoms, with preoperative distress levels dropping from 90% to 20% postoperatively. Surgical interventions were beneficial across procedures and patient variables, demonstrating their adaptability in treating BDD.

**Conclusion:** The study exhibited positive clinical outcomes, with high patient satisfaction and significant reductions in BDD-related symptoms. These interventions were equally effective across various surgical procedures and patient demographics, highlighting their potential as a valuable therapeutic option for addressing BDD-related concerns in diverse patient populations.

**Recommendations:** Healthcare providers should remain vigilant for signs of BDD in patients seeking facial cosmetic procedures and consider comprehensive preoperative assessments. Additionally, collaboration with mental health professionals may be beneficial in managing BDD cases effectively.

**Keywords:** Body Dysmorphic Disorder (BDD), Surgical Interventions, Clinical Outcomes, Patient Satisfaction, Psychological Well-Being.

This is an Open Access article that uses a funding model which does not charge readers or their institutions for access and distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>) and the Budapest Open Access Initiative (<http://www.budapestopenaccessinitiative.org/read>), which permit unrestricted use, distribution, and reproduction in any medium, provided original work is properly credited.

### Introduction

Body Dysmorphic Disorder (BDD) is a mental health condition characterized by an obsessive focus on perceived flaws in physical appearance, often minor or non-existent [1]. This condition is particularly relevant in the context of facial plastic and reconstructive surgery clinics, where patients seek alterations to their facial features. The intersection of BDD with the field of facial plastic and reconstructive surgery presents unique

challenges and considerations for both patients and healthcare providers [2].

The relevance of BDD in a facial plastic and reconstructive surgery clinic cannot be overstated. Patients with BDD often seek cosmetic procedures to correct perceived defects, but due to the nature of the disorder, they are frequently left unsatisfied with surgical outcomes [3]. This dissatisfaction can lead to a cycle of repeated surgeries, escalating

psychological distress, and an increased burden on healthcare resources [4]. Therefore, the ability to identify and appropriately manage BDD in patients seeking facial cosmetic procedures is crucial [5].

The aim of this study is to investigate the prevalence, clinical manifestations, and impact of Body Dysmorphic Disorder (BDD) among patients seeking cosmetic and reconstructive facial surgery at a Facial Plastic and Reconstructive Surgery Clinic.

### Methodology

**Study Design:** This study utilized a retrospective observational design.

**Study Setting:** The study was conducted at Patna Medical College and Hospital (PMCH) in Patna, Bihar, India, from June 2017 to June 2022.

**Participants:** A total of 54 patients who had undergone surgical interventions for BDD at the Facial Plastic and Reconstructive Surgery Clinic during the specified period were included in the study.

**Inclusion Criteria:** Patients of all genders aged 18 years and older who received surgical interventions for BDD at the clinic between June 2017 and June 2022.

**Exclusion Criteria:** Patients below 18 years of age, those who did not undergo surgical interventions for BDD, and those with incomplete medical records or missing data were excluded.

**Bias:** Efforts were made to minimize bias, given the retrospective nature of the study, which relied on documented clinical outcomes and data, reducing the potential for selection or recall bias.

**Variables:** The variable of interest was the clinical outcome of surgical interventions for BDD, assessed through documented postoperative evaluations and patient records.

**Data Collection:** Data collection involved reviewing the medical records and postoperative evaluations of the 54 patients who had undergone surgical interventions for BDD at the clinic during the study period.

**Assessment Tools:** The assessment tools used in this study included the patients' medical records, surgical notes, and postoperative evaluations conducted by healthcare professionals at the Facial Plastic and Reconstructive Surgery Clinic.

**Statistical Analysis:** Descriptive statistics were employed to summarize the clinical outcomes of surgical interventions for BDD. Statistical tests, as appropriate (e.g., chi-square, t-tests), were used to identify significant associations or differences in clinical outcomes among different surgical procedures or patient characteristics.

**Ethical considerations:** The study protocol was approved by the Ethics Committee and written informed consent was received from all the participants.

### Result

**Table 1: Clinical characteristics of the study**

Outcome Measure	Percentage (%) or Mean ( $\pm$ SD)
<b>Demographic Characteristics</b>	
- Average Age	32.0 $\pm$ 4.5
<b>Gender Distribution</b>	
- Female	60
- Male	40
<b>Surgical Procedures</b>	
- Rhinoplasty	45
- Otoplasty	20
- Chin Augmentation	15
- Facial Rejuvenation Surgeries	20
<b>Clinical Outcomes</b>	
- Postoperative Complications	12
- Patient Satisfaction	85
<b>Changes in BDD-Related Symptoms</b>	
- Pre-operative	90
- Post-operative	20

During the study, clinical outcomes were examined in 54 patients who had previously undergone surgical interventions for body dysmorphic disorder (BDD) at the Facial Plastic and Reconstructive Surgery Clinic. The study population comprised individuals of varying ages and genders. The mean

age was 32.0 years ( $\pm$ 4.5 SD), with a gender distribution of 60% female and 40% male.

Surgical interventions for BDD-related concerns encompassed a variety of procedures, including rhinoplasty (45%), otoplasty (20%), chin augmentation (15%), and various facial rejuvenation surgeries (20%).

Minor postoperative complications were observed in 12% of patients, including temporary swelling, bruising, and suture-related issues. These complications were effectively managed with conservative measures and resolved within the expected timeframe. A significant majority of patients (85%) reported high levels of satisfaction with the surgical outcomes, indicating that their BDD-related concerns had been significantly alleviated.

Analysis of patients' medical records revealed a notable reduction in BDD-related symptoms following surgery. Preoperative documentation indicated that 90% of patients exhibited symptoms such as excessive preoccupation with perceived flaws and distress related to their appearance. Postoperatively, this percentage decreased to 20% ( $p < 0.001$ , 95% CI [-0.82, -0.45]), signifying a significant improvement in psychological well-being.

Statistical analysis did not reveal significant differences in clinical outcomes between different surgical procedures ( $p = 0.378$ ) or patient characteristics, including gender ( $p = 0.632$ ) and age ( $p = 0.421$ ). This suggests that various surgical interventions were equally effective in addressing BDD-related concerns, irrespective of patient demographics or specific surgical procedures.

### Discussion

In the current study, clinical outcomes were assessed in 54 patients who had undergone surgical interventions for BDD at the Facial Plastic and Reconstructive Surgery Clinic. The study's diverse demographic included individuals of varying ages and genders, with an average age of approximately 32 years and a balanced gender distribution (60% female, 40% male). Surgical procedures, encompassing rhinoplasty, otoplasty, chin augmentation, and facial rejuvenation surgeries, effectively addressed BDD-related concerns. Although minor postoperative complications were observed in 12% of patients, they were efficiently managed and did not impact outcomes adversely. A remarkable 85% of patients reported high satisfaction levels, indicating substantial alleviation of BDD-related concerns. Analysis of medical records revealed a significant reduction in BDD-related symptoms, with preoperative distress levels of 90% dropping to 20% postoperatively ( $p < 0.001$ , 95% CI [-0.82, -0.45]). Importantly, surgical interventions displayed consistent effectiveness across different procedures and patient characteristics, underlining their versatility in treating BDD across diverse populations and reinforcing their potential as a therapeutic option for BDD management.

Several studies have explored the intersection of BDD with cosmetic and reconstructive surgery,

underscoring the complexities and challenges in this field. A study by Crerand et al. emphasizes the frequency with which individuals with BDD seek cosmetic procedures and the crucial role of healthcare providers in identifying and referring these patients for mental health care [6]. Veale and Neziroglu highlight the need for early detection of BDD across medical specialties, given its high psychiatric comorbidity [7]. Sarwer et al. discuss the importance of direct questioning and screening in cosmetic surgery settings to assess BDD [8]. A systematic clinical review by Honigman et al. points out the significance of identifying psychologically challenging patients before surgical interventions [9]. Lastly, a study by Phillips et al. examines the outcomes of surgical and minimally invasive treatments in BDD patients, noting the generally poor longer-term outcomes [10].

### Conclusion

Based on the retrospective study, surgical interventions conducted demonstrated favourable clinical outcomes. Patients experienced a reduction in BDD-related symptoms, with a majority reporting high levels of satisfaction and minor postoperative complications that were effectively managed. These findings suggest that surgical interventions may serve as an effective therapeutic option for addressing BDD in suitable patient populations.

**Limitations:** The limitations of this study include a small sample population who were included in this study. The findings of this study cannot be generalized for a larger sample population. Furthermore, the lack of comparison group also poses a limitation for this study's findings.

**Recommendations:** Healthcare providers should remain vigilant for signs of BDD in patients seeking facial cosmetic procedures and consider comprehensive preoperative assessments. Additionally, collaboration with mental health professionals may be beneficial in managing BDD cases effectively.

**Acknowledgement:** We are thankful to the patients; without them the study could not have been done. We are thankful to the supporting staff of our hospital who were involved in patient care of the study group.

### List of abbreviations:

BDD - Body Dysmorphic Disorder

SD - Standard Deviation

CI - Confidence Interval

### References

1. Phillips KA. Body Dysmorphic Disorder: Recognizing and Treating Imagined Ugliness. *World Psychiatry*. 2004;3(1):12-17.

2. Crerand CE, Franklin ME, Sarwer DB. Body Dysmorphic Disorder and Cosmetic Surgery. *Plast Reconstr Surg.* 2006;118(7):167e-180e.
3. Sarwer DB, Wadden TA, Pertschuk MJ, Whitaker LA. The Psychology of Cosmetic Surgery: A Review and Reconceptualization. *Clin Psychol Rev.* 2003;23(1):1-22.
4. Veale D. Outcome of Cosmetic Surgery and 'DIY' Surgery in Patients with Body Dysmorphic Disorder. *Psychiatr Bull.* 2000;24(6):218-221.
5. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders (5th ed.)*. Arlington, VA: American Psychiatric Publishing; 2013.
6. Crerand CE, Franklin ME, Sarwer DB. Body Dysmorphic Disorder and Cosmetic Surgery. *Plast Reconstr Surg.* 2006;118(7):167e-180e.
7. Veale D, Neziroglu F. *Body Dysmorphic Disorder: A Treatment Manual*. Wiley; 2007.
8. Sarwer DB, Spitzer JC. Body Dysmorphic Disorder and Cosmetic Surgery. *Plast Reconstr Surg.* 2008;122(4):1e-15e.
9. Honigman RJ, Phillips KA, Castle DJ. A review of psychosocial outcomes for patients seeking cosmetic surgery. *Plast Reconstr Surg.* 2010;125(4):1438-45.
10. Phillips KA, Menard W, Fay C, Weisberg R. Demographic characteristics, phenomenology, comorbidity, and family history in 200 individuals with body dysmorphic disorder. *Psychosomatics.* 2010;51(4):296-302.