Cosmetic Treatments and Body Dysmorphic Disorder

Canice E. Crerand, PhD; and David B. Sarwer, PhD

In 2009, approximately 12.5 million cosmetic surgical (eg, breast augmentation, rhinoplasty) and minimally invasive procedures, (eg, Botox injections and chemical peels) were performed in the United States. The number of cosmetic procedures performed in the United States has increased by more than 60% since 2000. As these statistics suggest, cosmetic procedures are popular. Numerous theoretical explanations for the popularity of cosmetic procedures have been put forth, including the large body of social psychological research regarding the important role of physical appearance in daily life, the role of the mass media in perpetuating unrealistic images of beauty ideals, and technological advances in cosmetic medicine that allow procedures to be performed more safely and with less recovery time than in the past.

Not surprisingly, there is interest, among treatment providers and patients alike, in understanding the psychological motivations that underlie the pursuit of these treatments. This interest is by no means new because there is a large lit-
erature on the psychological aspects of cosmetic surgery. Most contemporary studies on the psychological aspects of cosmetic surgery have focused on body image and appearance concerns of those interested in surgery.

Body image dissatisfaction has been associated with more favorable attitudes toward surgery among college-age women. Dissatisfaction with body image has been hypothesized to motivate the pursuit of cosmetic surgery. Research has found support for this hypothesis because increased body image dissatisfaction has been documented among people who present for a variety of cosmetic procedures. Improvements in body image have also been observed postoperatively.

Body image dissatisfaction plays a role in several psychiatric disorders. It is also a key feature of body dysmorphic disorder (BDD). This article reviews the relationship between BDD and cosmetic treatments, including the prevalence of BDD in cosmetic surgery populations, use of cosmetic treatments by those with BDD, and the effect of cosmetic treatments on BDD symptoms. Recommendations for clinical care are discussed.

**DIAGNOSIS OF BDD IN COSMETIC SURGERY POPULATIONS**

Even before BDD was mentioned (without diagnostic criteria) in the Diagnostic and Statistical Manual of Mental Disorders, third edition (DSM-III), in 1980, descriptions of “minimal deformity” and “insatiable” patients were reported in the cosmetic surgery literature. Similarly, case reports of “dysmorphophobia” (an older term for BDD) and “dermatological non-disease” appeared in the dermatology literature. These patients typically presented with requests for multiple procedures to improve slight or imagined defects in physical appearance and, typically, reported high levels of dissatisfaction with their postoperative results. Such descriptions are remarkably consistent with those seen in patients with BDD today, many of whom seek cosmetic treatment for their perceived appearance flaws (as discussed below).

As we have previously noted, it can be difficult to apply BDD diagnostic criteria to individuals interested in cosmetic treatments. Most patients who seek cosmetic procedures desire correction of slight imperfections in appearance. Therefore, the first diagnostic criterion, preoccupation with a nonexistent or slight appearance defect, might describe most patients who request cosmetic procedures (although data on the degree of preoccupation in BDD compared with individuals without BDD who request cosmetic procedures are lacking). Additionally, the classification of a defect as “slight” can be subjective and vary between patient and provider, as well as across providers.

Application of BDD’s second diagnostic criterion, the presence of clinically significant distress or impairment in functioning related to the appearance concern, is also sometimes challenging. As detailed in the article by Didie et al. (see page 310), the degree of impairment and distress can vary between patients (although this is also the case for other psychiatric disorders). Those who seek cosmetic procedures often report...
self-consciousness in situations in which their feature may be noticed by others. Some may avoid specific situations for fear of exposing the feature for which surgery is desired (eg, avoid the beach because of self-consciousness about the appearance of one’s breasts in a bathing suit). However, such self-consciousness or avoidance of specific situations does not always rise to the level of causing clinically significant distress or impairment in daily functioning, which is seen among all with BDD.

Despite these challenges, our impression is that BDD’s diagnostic criteria can be applied to patients who seek cosmetic surgery to differentiate the pathological appearance concerns of BDD from more normal appearance concerns. Furthermore, we have previously argued that the degree of distress and functional impairment may be the most important elements of the BDD diagnostic criteria that differentiate BDD from more normal appearance concerns in patients seeking cosmetic surgery.11,13

PREVALENCE OF BDD IN COSMETIC SURGERY AND DERMATOLOGY POPULATIONS

Decades ago, anecdotal reports and clinical observations suggested that BDD occurred in about 2% of cosmetic surgery patients.14 Subsequent studies conducted around the world have demonstrated that BDD is far more common. Among U.S. cosmetic surgery patients, 7% to 8% have been found to meet criteria for BDD.6,15 International studies have reported point prevalence rates typically ranging from 3.2% to 16%,16,17 although one methodologically flawed study suggested the rate is 53%.11,12,18

Studies have also examined the prevalence of BDD in specific cosmetic surgery populations. For example, a point prevalence of 20.7% was reported in a sample of 29 rhinoplasty patients.19 In contrast, another study found that fewer than 3% of patients presenting for nonsurgical cosmetic treatments (eg, chemical peels) met criteria for BDD.20

BDD also appears to be common in dermatology populations, with reported prevalence rates ranging from 8.5% to 15%.16,21-24 Among patients seeking treatment for acne, prevalence rates of BDD range from 8.8% to 14%.21,24 One study found that acne patients treated with isotretinoin (Accutane) were twice as likely to meet diagnostic criteria for BDD compared with patients with acne who had not been treated with this medication.21 This finding is notable in light of the association between suicidality and isotretinoin use and the high rates of suicidality reported in persons with BDD.25

BDD’s prevalence has also been investigated in other medical populations. For example, in patients requesting reconstructive surgical procedures, such as scar revision, 7% to 16% reported appearance preoccupation and distress consistent with BDD.15,26 The prevalence of BDD among patients presenting to a general medical clinic has been estimated at 4%.27 A prevalence of 7.5% has been reported in patients presenting for orthodontic treatment28 and 10% in patients presenting for oral and maxillofacial surgery.29

THE USE OF COSMETIC TREATMENTS AMONG PEOPLE WITH BDD

Those with BDD often seek cosmetic medical treatments to alleviate their appearance-related distress. This is not surprising, particularly given emerging neurobiological evidence that suggests that people with BDD process facial stimuli differently than healthy controls30 and fixate on small details. These neurobiological differences may explain why individuals with BDD perceive their appearance differently than objective observers do and have a tendency to remain dissatisfied with their appearance even after technically successful procedures. Clinically, these patients are often convinced that the only way that they will feel better about their appearance and themselves is to change their appearance. The above-noted studies indicate that BDD is relatively common in various surgical and medical populations. Conversely, a high proportion of individuals with BDD seek and receive cosmetic treatment. In one study of patients with BDD, 48% had sought cosmetic surgical and dermatologic treatments, and 26% had undergone more than one procedure.31 Two larger studies reported that 71% to 76% of patients sought and 64% to 66% received cosmetic treatments.32,33 Dermatologic treatments for perceived acne were the most commonly received procedures in both studies. However, pursuit and receipt of surgical and other minimally invasive procedures were also documented.32,33 Alarming, there are case reports of those with BDD who have attempted to perform cosmetic procedures on themselves (for example, attempting to perform a facelift with a staple gun).34

OUTCOME OF COSMETIC TREATMENTS IN PEOPLE WITH BDD

Clinical reports and retrospective studies suggest that cosmetic treatments usually do not improve BDD symptom severity.31-35 The largest study (n = 250 adults) found that only 7.3% of all cosmetic treatments that were received led to a decrease in concern with the treated body part and overall improvement in BDD.33 In another study (n = 200 subjects), only 3.6% of all received procedures resulted in an improvement in BDD symptoms.32 Among those patients who reported improvement in the appearance of the treated body part, some became anxious and preoccupied with concerns about how long the improvement would last.32 A recent study that examined outcomes of surgical and minimally invasive treatments in people with BDD found that surgical and minimally invasive treatments were more likely than other cosmetic procedures (such as dermatologic or dental procedures) to decrease preoccupation with the treated body part.35 However, only 2.3% of treatments resulted in longer-term improvement in overall BDD severity. In a prospective naturalistic study (n = 200), receipt of cosmetic treatment did not pre-
dict remission from BDD symptoms over the course of 1 year.36

After cosmetic treatments, some individuals with BDD develop new appearance concerns.35,36 A small prospective study of BDD among cosmetic surgery patients who requested treatment of minimal defects found that the majority of those who met criteria for BDD had undergone surgery.37

However, surgery did not affect diagnostic status at follow-up, and most had developed new areas of preoccupation.37 Such an occurrence is not surprising, given that appearance preoccupations can shift from one feature to another over the course of the disorder. Studies also suggest that BDD symptom exacerbations are not uncommon after cosmetic treatments.32,33

In addition to the evidence that cosmetic treatments do not typically improve BDD symptoms, there are concerns about how a “failed” procedure may affect those with BDD emotionally. High rates of suicidal ideation and attempts have been reported among people with BDD.25 Our clinical observations indicate that dissatisfaction with postoperative outcome can lead to suicidal ideation or attempts. Of note, within the past decade, epidemiological studies of mortality among women who have undergone cosmetic breast augmentation have found a suicide rate approximately three times greater than expected based on estimates of the general population.38 This association may be explained by the presence of preoperative psychopathology that was undetected by the plastic surgeon.38 Given the relationship between suicidality and BDD, it is possible that some of the suicides reported among breast augmentation patients could be related to BDD.

Providers of cosmetic treatments also face risks if they choose to treat those with BDD. A survey of 265 cosmetic surgeons found that 29% had been threatened legally by a patient with BDD.39 Of even greater concern, patients with BDD may become violent. Although some patients with BDD may only fantasize about physically harming their providers,31 there are at least four documented reports of surgeons who have been murdered by patients with BDD.12

Many treatment providers appear to be aware of these risks and, as a result, often refuse to perform procedures on people with BDD. In the above-noted survey, more than 80% of cosmetic surgeons reported that they had refused to operate on a patient suspected of having BDD, although 84% reported having operated on a patient only to realize that the patient had BDD after surgery.39 In Phillips et al.’s sample of 250 patients, 35% of 785 requested treatments were not provided, most commonly because of physician refusal to perform the procedure.35 Similarly, in the above-noted sample of 200 patients, 20.6% of sought procedures were not received, primarily because the provider refused to perform the procedure.32 Unfortunately, in today’s competitive market, persistent patients may seek consultations from numerous providers until they find one who is willing to provide the desired treatment.

In a study that examined surgical and minimally invasive treatment outcomes in those with BDD, treatment providers were significantly less likely to refuse surgical/minimally invasive treatment than other types of procedures (e.g., dermatologic or dental treatment).35 This finding could reflect the fact that some providers may have been unaware of the patient’s BDD or that they do not believe BDD to be a contraindication for cosmetic treatment.35 Providers need to be aware that while temporary improvements in preoccupation may occur after cosmetic treatments, such treatments appear to rarely result in longer-term benefit for those with BDD.

RECOMMENDATIONS FOR CLINICAL CARE

In light of the safety concerns for patients and providers, and the growing evidence that cosmetic treatments are not beneficial for people with BDD, the disorder is increasingly considered to be a contraindication for cosmetic treatments.3,11-13,33,34,39,40 Because many with BDD seek cosmetic treatments rather than appropriate psychological and psychiatric treatments, all patients presenting for cosmetic treatments should be screened for BDD. As we have detailed previously,12,13 in addition to inquiring about the diagnostic criteria for BDD, it can be helpful for clinicians to assess patient motivations and expectations for cosmetic treatment, psychiatric status and history, and an observation of the patient’s behavior in the office (e.g., bringing numerous pictures or drawings of desired features to the appointment, making unusual requests for appointment times so as to avoid being seen by other people). Such a screening may include an interview with the patient and/or use of self-report assessments for BDD symptoms.22 Individuals suspected of having BDD should be referred to a mental health professional for evaluation and treatment with cognitive behavioral therapy and/or pharmacological treatment with serotonin reuptake inhibitors (SRIs), both of which are effective interventions for BDD symptoms (see Phillips, page 325, and Veale et al., page 333).

CONCLUSIONS

Each year, millions of Americans undergo cosmetic surgery or a minimally invasive treatment designed to improve their appearance. Most of these patients likely have realistic expectations for these procedures and are satisfied with the changes in their appearance. However, as demonstrated by a number of studies, a sizable minority of patients who seek these treatments are suffering from BDD. These individuals, who likely believe that they will only reduce their preoccupation with their appearance by changing the way that they look, frequently seek and receive cosmetic medical treatments. Unfortunately, few persons with BDD experience a reduction in their BDD symptoms with such treatment. Most experience no change or even a worsening of their appearance concerns. Some, unfortunately, become suicidal or may threaten (or un-
undertake) legal action or acts of violence against the treating physician.

Many physicians who offer cosmetic medical treatments are well versed in recognizing BDD. They take the time to assess their patients’ motivations and expectations for treatment, ask about their appearance and body image concerns, and inquire about a history of psychiatric treatment. Some providers will refuse treatment and provide appropriate referrals to mental health professionals. Unfortunately, this is not currently the universal standard of care in cosmetic medicine. As these procedures continue to grow in popularity and acceptance, we hope that the physicians who offer them will focus on the psychological well-being of their patients, particularly those who present with significant psychopathology, such as BDD. At the same time, we, as mental health professionals, need to be well positioned to partner with these clinicians and provide patients with appropriate psychopharmacologic and/or psychotherapeutic treatment.

REFERENCES


