



**SORT: KEY RECOMMENDATIONS FOR PRACTICE**

<i>Clinical recommendation</i>	<i>Evidence rating</i>	<i>References</i>	<i>Comments</i>
Treatment of BDD with cosmetic procedures is not recommended.	C	22, 23	Rarely improves symptoms, adds to psychic distress
BDD should be considered in patients before performing aesthetic procedures.	C	1, 3, 6	
Treatment with high dosages of SSRIs has been shown to be effective for BDD.	B	24-29	See Table 5
Cognitive behavior therapy has been shown to be effective in patients with BDD.	B	30-34	

*BDD = body dysmorphic disorder; SSRIs = selective serotonin reuptake inhibitors.*

*A = consistent, good-quality patient-oriented evidence; B = inconsistent or limited-quality patient-oriented evidence; C = consensus, disease-oriented evidence, usual practice, expert opinion, or case series. For information about the SORT evidence rating system, see <http://www.aafp.org/afpsort.xml>.*

muscles, buttocks, genitalia, hands, and feet. The types of bodily concerns tend to vary with gender (Table 2)<sup>14,15</sup>; however, similarities include single marital status (75 percent) and living with one's parents (25 percent).

**CASE STUDY**

Demetrius is a 16-year-old Greek-American male who was admitted to the adolescent inpatient unit following an automobile collision. Demetrius has a history of major depression, school absences, and declining grades. His depression began at the onset of puberty. He reported that his automobile crash was not intentional, but that he was looking at his

nose and acne in the rearview mirror when he lost control of his car on the freeway. No one else was with him; he has no friends and prefers to stay at home with his parents because he feels that his nose is hideous. He has never dated, avoids school functions, does not participate in sports, and believes that others laugh at the size of his nose. Demetrius is six feet tall, lanky, and thin. He has a full head of curly brown hair, a large nose, severe acne, and a pleasant demeanor.

While on the adolescent psychiatric unit, Demetrius spent a lot of time in the bathroom picking at his face, looking at his nose in reflective surfaces, and trying to manipulate his way out of group activities. He often had his hand over his nose and insisted on wearing a large hat and glasses on field trips. In spite of these behaviors, he was well-liked by others on the unit. Dermatology was consulted and his acne improved. Later that year, he had a rhinoplasty and his outlook was more positive. Two years later, he was readmitted following a suicide attempt after a breakup with his first girlfriend. At the second admission, he became convinced that he would be more appealing to women if he had cosmetic dentistry and began a bodybuilding regimen to achieve more definition of the muscles in his arms. At a five-year follow-up, Demetrius had quit high school and was living at home with his parents, not working, and on psychiatric disability.

**Table 1. Rates of Body Dysmorphic Disorder in Selected Populations**

<i>Population*</i>	<i>Prevalence rates (%)</i>
Anorexia nervosa	39
Atypical depression	14 to 42
Obsessive-compulsive disorder	8 to 37
Social anxiety	11 to 13
Dermatology and cosmetic surgery patients	6 to 15
Female college students	2 to 5

*\*—Populations listed in order of prevalence. Information from references 3 and 7 through 10.*

**Etiology**

Many theories have been proposed to explain the possible root causes of BDD, but no definitive etiology has been identified to date. Some popular theories include unrealistic societal standards and expectations, parental pressure, poor self-esteem, and neurotransmitter imbalances.<sup>1,16</sup> Cultural, social, and psychological components seem to play a role. One proposed model is similar to other psychiatric diagnoses that include genetic, cultural, and psychological factors<sup>1</sup> that manifest after a triggering event. For example, BDD may be triggered in a person genetically predisposed to anxiety who has been teased throughout high school about some distinguishing physical characteristic. One small study found that serotonin transporter promoter genes tend to be shorter in persons with BDD compared with the general population.<sup>1</sup> A 20 percent concordance rate of BDD among first-degree relatives has been described.<sup>15</sup>

**Diagnosis**

BDD is commonly missed, dismissed, and misdiagnosed in most medical settings.<sup>3</sup> Numerous studies have illustrated the rarity of a BDD diagnosis being included on a patient’s problem list, even when looking at mental health records.<sup>17</sup> Successful treatment requires physician awareness of the disorder and a timely and accurate diagnosis. *Table 3*<sup>2</sup> lists diagnostic criteria for BDD.

Patients are often reluctant or ashamed to admit to the problem or seek help for it. Important clinical features physicians should look for include: impairment in social functioning, such as avoidance of school, work, or other social situations; poor performance at school or work; and lateness caused by time spent grooming or camouflaging. Bodybuilders and patients with eating disorders also may have BDD. Muscle dysmorphia, considered by many to be a subtype of BDD, is characterized by excessive preoccupation and insecurity with one’s musculature, resulting in excessive weight lifting, anabolic steroid use, and impaired social functioning.<sup>18</sup> Comorbid diagnoses such as obsessive-compulsive disorder (OCD),

anorexia nervosa, and depression have also been well described.<sup>19,20</sup> However, BDD is a clinically distinct entity and its treatment differs in several important ways. Therefore, physicians should have a high index of suspicion for this disorder. Risk of depression and suicidality should be considered in patients with BDD because of the high correlation between these disorders.<sup>11,12</sup>

To rule out an eating disorder, ask the patient if his or her main appearance-related concern is with not being thin enough. If

**Table 2. Gender Predominance of Specific Symptoms in Body Dysmorphic Disorder**

<i>Symptom</i>	<i>Male</i>	<i>Female</i>
Body part focus	Body build Genitalia Thinning hair	Breasts Buttocks Excessive hair Nose Skin Stomach Teeth Thighs Weight
Behavior	Substance use disorder Weight lifting	Camouflaging techniques (e.g., baggy clothing, hats, wigs, makeup) Eating disorder Skin picking

*Information from references 14 and 15.*

**Table 3. Criteria for Diagnosis of Body Dysmorphic Disorder**

- A person is preoccupied with an imagined deficit in appearance. If a slight physical anomaly is present, the person’s concern is markedly excessive
- The preoccupation causes clinically significant distress or impairment in social, occupational, or other important areas of functioning
- The preoccupation is not better accounted for by another mental disorder (e.g., anorexia nervosa)

NOTE: All three criteria must be present for diagnosis.

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not, BDD screening questions to ask the patient should cover the level of preoccupation and pervasiveness of thoughts related to the appearance of the body part; how much time is spent on these thoughts per day (e.g., less than one hour; one to three hours or longer); and how these thoughts have affected aspects of the patient's life (e.g., distress levels, social life impairment, productivity at school or work, avoidance behaviors, impact on friends and family).<sup>1</sup> A positive screen should include answers from the patient that indicate a high level of concern about the body part, which includes thinking about it for at least one hour per day and having at least one aspect of daily life significantly affected by this preoccupation.<sup>1</sup>

### Treatment

One approach to treating patients with BDD is to change their appearance. However, procedures aimed at treating the underlying physical "defect," usually performed by a plastic surgeon, dermatologist, or other medical subspecialist, have proved unsuccessful in patients with BDD.<sup>21,22</sup> The altered appearance may fall short of patient expectations and fail to relieve psychic distress, and additional changes may be sought. Before long, such patients may be seen as hypochondriacs or as having Munchausen syndrome. Consequently, the most important

management point is to help patients with BDD to avoid surgical "corrections," which only address a derivative symptom and leave the underlying ideation unchanged.

Whereas definitive treatments for BDD are unknown, pharmacologic interventions may be modeled on approaches to related disorders. Several classes of psychotropic medications have been tried since BDD was classified as a mental illness. Antipsychotics, monoamine oxidase inhibitors, and tricyclic antidepressants have been used; although anecdotal reports of treatment success appear in the literature, no randomized controlled trials (RCTs) are on record. In hindsight, it seems most likely that the treatment successes occurred in patients who had comorbid conditions such as major depression or an anxiety disorder, or in cases where the diagnosis should have been somatic delusional disorder.

Newer medications were tried when the central role of serotonergic neurotransmission in the manifestation of obsessive thinking and compulsive behavior became clearer. Selective serotonin reuptake inhibitors (SSRIs) have been shown to effectively treat OCD.<sup>23</sup> This observation suggested the potential effectiveness of SSRIs for treatment of BDD, and led to several small-scale, open-label studies and a few RCTs.<sup>24-29</sup> The most rigorous of the RCTs used fluoxetine (Prozac).<sup>24</sup> The SSRIs were shown to reduce symptoms and subjective distress in 63 to 73 percent of patients. Dosages were higher than customarily used in the treatment of depressive disorders, and treatment response often took up to 12 weeks.<sup>10,24-29</sup> None of these agents are currently approved for the treatment of BDD; therefore, the prescription is off-label. It is unknown how long medication needs to be continued after BDD has gone into remission. *Table 4*<sup>24-29</sup> lists effective dosages of medications for BDD treatment.

The limitations of SSRIs are evident, but they may provide relief in combination with psychotherapy. Promising psychotherapeutic approaches include cognitive behavior therapy (CBT), which appears to be a particularly useful adjunct to pharmacotherapy.<sup>30</sup> There

**Table 4. Effective Dosages of Medications Used to Treat Body Dysmorphic Disorder**

Medication	Average dosage*
Citalopram (Celexa)	50 mg per day
Clomipramine (Anafranil)	140 mg per day
Escitalopram (Lexapro)	30 mg per day
Fluoxetine (Prozac)	80 mg per day
Fluvoxamine (Luvox; brand only available in extended-release capsules)	More than 200 mg per day

NOTE: Treatment of body dysmorphic disorder is an off-label use for these medications.

\*—Dosages based on those used in studies of body dysmorphic disorder. These studies had small numbers of patients; thus, the ideal dosage range has not yet been determined.

Information from references 24 to 29.

### Table 5. Resources for Research-Based Information on Body Dysmorphic Disorder

#### Readers interested in learning more about the latest research on body dysmorphic disorder can reference these Web sites:

- Los Angeles Body Dysmorphic Disorder Clinic  
Research Studies  
Web site: <http://www.bddclinic.com/bddresearchstudies.html>
- BioBehavioral Institute, New York  
Web site: <http://www.bio-behavioral.com/bdd.asp>
- Body Image Program at Butler Hospital  
Web site: <http://www.butler.org/body.cfm?id=123>
- Harvard Medical School and Massachusetts General Hospital  
Web site: <http://www.massgeneral.org/bdd/>

are no data on record to document the comparative effectiveness of pharmacologic treatments and CBT. In CBT, the therapist assists the patient to correct (or “restructure”) cognitive distortions, putting the patient’s negative self-perception into a different perspective to develop less negative beliefs about his or her appearance. This may involve helping the patient see an offensive body part in the context of his or her ethnic heritage or family connections. CBT methods have been employed in individual therapy arrangements<sup>31-33</sup> and group therapy formats.<sup>34</sup>

When referring to a therapist, it is important to locate one with CBT training who has experience treating patients with eating disorders, OCD, and depression. Collaboration among psychiatrists and primary care physicians is essential. *Table 5* lists resources that offer additional information about BDD.

The authors thank Kathryn Hunt for her assistance in the preparation of the manuscript.

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Author disclosure: Nothing to disclose.

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