Body Dysmorphic Disorder: Clinical Aspects and Relationship to Obsessive-Compulsive Disorder

Katharine A. Phillips, M.D.

Body dysmorphic disorder (BDD) is an obsessive-compulsive and related disorder that is common and usually causes substantial distress and impairment in psychosocial functioning. BDD is associated with markedly poor quality of life and high rates of suicidal ideation and behavior. The first-line pharmacologic approach is a serotonin reuptake inhibitor, often at relatively high doses, serotonin reuptake inhibitors are also recommended for patients with delusional BDD beliefs. The first-line psychosocial treatment is manualized cognitive-behavioral therapy that is tailored to BDD’s unique clinical features. It is not recommended that therapists simply apply cognitive-behavioral approaches for other disorders, such as obsessive-compulsive disorder (OCD). Because insight is so often absent or poor in BDD, motivational interviewing techniques are often needed to engage and retain patients in treatment. Cosmetic treatment (e.g., surgery or dermatologic treatment) is not recommended because it appears to only rarely improve BDD symptoms and can even make them worse. BDD has many similarities to OCD and is probably closely related to OCD, but the two disorders also have some important differences. From a clinical perspective, the most important differences are that BDD is characterized by poorer insight, more frequent comorbid major depressive disorder and substance use disorders, and more frequent suicidality. Although treatment approaches have similarities to those for OCD, effective cognitive-behavioral therapy for BDD meaningfully differs from that for OCD.

Definition and Core Clinical Features of BDD

Diagnostic Criteria for BDD in DSM-5

Criterion A. Individuals with BDD are preoccupied with one or more perceived defects or flaws in their appearance; the perceived defects, however, are not observable or appear only slight to other people (criterion A) (1). Patients typically describe disliked areas as looking “ugly,” “unattractive,” or “deformed,” although they actually look normal (2). The appearance preoccupations usually occur for ≥1 hour a day; the average is 3–8 hours a day (3). They are intrusive, distressing, unwanted, and usually difficult to resist and control (3, 4).

The skin (usually facial skin) is the most frequently disliked body area (e.g., perceived acne, scarring, color, or wrinkles), followed by the hair (usually head hair; e.g., thinning hair or excessive facial hair) and nose (often size or shape). However, any body area may be the focus of preoccupation, such as teeth, eyes, mouth, jaw, ears, head size or shape, breasts, thighs, stomach, legs, hands, genitals, or body build (5, 6). The number of areas of excessive concern ranges from one to virtually the entire body, with an average of five to seven areas over the course of the disorder (5, 6). More than 25% of patients have at least one concern involving asymmetry (e.g., uneven hair or asymmetrical nostrils), which should be diagnosed as BDD rather than OCD (7).

Criterion B. The appearance preoccupations trigger excessive repetitive behaviors that focus on checking, fixing, hiding, or
TABLE 1. Some Key Facts About Body Dysmorphic Disorder

The core features of BDD are distressing or impairing preoccupation with nonexistent or slight defects or flaws in appearance: the preoccupation triggers excessive repetitive behaviors that attempt to check, fix, hide, or obtain reassurance about the perceived bodily deformities (e.g., mirror checking, comparing with others, excessive grooming or picking, and skin picking).

BDD is about as common as OCD, with a current prevalence of approximately 2% of the population.

BDD affects nearly as many men as women.

Many patients with BDD express suicidal ideation, and the rates of suicide attempts and completed suicide appear markedly elevated.

Individuals with BDD may be reluctant to spontaneously reveal their appearance concerns to psychiatrists or other mental health clinicians; thus, BDD may be misdiagnosed as major depressive disorder, social anxiety disorder, OCD, agoraphobia, and other disorders. Patients should be specifically asked about BDD symptoms.

The recommended first-line medication for BDD is an SRI, even if appearance beliefs are delusional in nature.

SRI doses and trial durations are similar to those used for OCD; higher doses and a longer treatment trial than those typically used for depression and most other disorders are recommended.

Antipsychotics may be helpful in addition to an SRI but are not recommended as monotherapy for patients with any level of insight (including delusional BDD).

Cognitive-behavioral therapy that is specifically tailored to BDD is the psychosocial treatment of choice. Simply treating BDD as if it were OCD is not recommended. Because the treatment can be complex and challenging, use of a BDD-specific treatment manual is recommended.

BDD, body dysmorphic disorder; OCD, obsessive-compulsive disorder; SRI, serotonin reuptake inhibitor.

obtaining reassurance about the perceived flaws (1, 4). These behaviors intend to (but often do not) alleviate emotional distress caused by the appearance preoccupations (4). Virtually all patients perform one or more of these repetitive behaviors at some point during the course of the disorder, as reflected in criterion B, a new criterion in DSM-5 (3). BDD repetitive behaviors have many similarities to OCD compulsions (8); they are commonly referred to as compulsions or rituals. Like OCD rituals, BDD repetitive behaviors are typically difficult to resist or control, are distressing, and usually occur for ≥1 hour a day (most often, for 3–8 hours a day) (3, 8).

Table 2 lists common repetitive BDD behaviors (5, 6). This list is not exhaustive; patients may engage in other repetitive behaviors, such as compulsive shopping for hair products, videotaping their “receding” hairline, or searching for information about surgery online. Most of these behaviors are observable, but some—most notably, comparing with others—are mental acts.

More than 90% of patients camouflage their perceived defects, hiding them with a hat, their hair, makeup, clothes, or body position (5, 6). The goal of camouflaging is to avoid or escape unpleasant feelings or prevent a feared event, such as being ridiculed. In this sense, it is a safety behavior; however, camouflaging can be done repeatedly (e.g., repeatedly rearranging one’s bangs to hide a supposedly high forehead) and thus may fulfill DSM-5 criterion B.

Criteria C and D. The appearance preoccupations and resulting repetitive behaviors must cause clinically significant distress or impairment in social, occupational, or other important areas of functioning (criterion C) (1). Appearance preoccupations that focus on excessive body fat or weight and qualify for an eating disorder diagnosis should be diagnosed as an eating disorder rather than BDD (criterion D) (1).

BDD Specifiers in DSM-5: Muscle Dysmorphia, Insight, and Panic Attacks

DSM-5 added two new specifiers to BDD’s definition, which identify important subgroups of individuals with BDD as follows.

Muscle dysmorphia. The “with muscle dysmorphia” specifier identifies normal-looking individuals (usually men) who are preoccupied with the inaccurate belief that their body build is too small or insufficiently muscular (1, 3, 9). Some men with the muscle dysmorphia form of BDD are unusually muscular because they abuse anabolic steroids or excessively lift weights (9). This specifier is used if patients also have nonmuscle-focused appearance preoccupations.

Insight. The “insight” specifier indicates level of insight regarding BDD beliefs (a typical belief is “I look ugly.”). DSM-5 provides the following three levels of insight (1): “with good

TABLE 2. Common Repetitive Behaviors (Compulsions) in Body Dysmorphic Disorder*

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Comparing disliked body parts with the same areas on others (e.g., in person, online, on television)</td>
<td>88</td>
</tr>
<tr>
<td>Checking disliked body areas in mirrors or other reflecting surfaces</td>
<td>87</td>
</tr>
<tr>
<td>Grooming (e.g., applying makeup, cutting, styling, shaving, or removing head hair, facial hair, or body hair)</td>
<td>59</td>
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<tr>
<td>Seeking reassurance about the perceived defects or questioning others about how they look (e.g., “Can you see this on my face?”)</td>
<td>54</td>
</tr>
<tr>
<td>Touching the disliked areas to check their appearance</td>
<td>52</td>
</tr>
<tr>
<td>Changing clothes (e.g., to camouflage disliked areas or find an outfit that distracts others from the “defects”)</td>
<td>46</td>
</tr>
<tr>
<td>Dieting (e.g., to make a “wide” face narrower)</td>
<td>39</td>
</tr>
<tr>
<td>Skin picking to improve perceived skin flaws</td>
<td>38</td>
</tr>
<tr>
<td>Tanning (e.g., to darken “pale” skin)</td>
<td>25</td>
</tr>
<tr>
<td>Excessive exercising</td>
<td>21</td>
</tr>
<tr>
<td>Excessive weight lifting</td>
<td>18</td>
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*Lifetime rates.

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or fair insight": the person recognizes that a belief about his or her appearance is definitely or probably not true, or that it may or may not be true; "with poor insight": the person thinks the BDD belief probably is true; and "with absent insight/delusional beliefs": the person is completely convinced that the BDD belief is true.

These levels are identical to DSM-5 insight levels for OCD and hoarding disorder, and the definition of the different levels of insight is similar to that for OCD (degree of conviction that the BDD or OCD belief is accurate).

The new insight specifier conveys several clinically relevant points (10). First, individuals who are completely convinced that their BDD belief is true—that they truly are ugly, deformed, or abnormal looking—should be diagnosed with "BDD with absent insight/delusional beliefs" rather than a psychotic disorder (this point was unclear in prior editions of DSM). Second, because delusional BDD and nondelusional BDD appear to be the same disorder, varying only in degree of insight, they should be treated similarly. Finally, specifying level of insight allows identification of patients with absent or poor insight who may be reluctant to accept a psychiatric diagnosis and treatment (instead believing that they actually look deformed and need cosmetic treatment). Psychiatrists may need to put greater emphasis on motivational interviewing and development of a good therapeutic alliance in order to successfully engage and retain such patients in treatment.

Figure 1 shows level of insight in BDD versus OCD (11). In both disorders, insight spans a full range, from excellent to absent (i.e., delusional beliefs). However, in BDD, insight regarding the perceived appearance defects (e.g., "I look ugly") is usually absent or poor. By contrast, about 85% of individuals with OCD have excellent, good, or fair insight into the beliefs that underlie their obsessions (e.g., whether the house really will burn down if they do not check the stove 30 times). Individuals with BDD are also less likely than those with OCD to recognize that their disorder-related beliefs have a psychiatric/psychological cause, rather than actually being true (Figure 2). Thus, patients with BDD may be more difficult to engage and retain in treatment than those with OCD.

**Panic attacks.** The “with panic attacks” specifier may be used for any disorder characterized by disorder-triggered panic attacks (as opposed to panic attacks that “come out of the blue,” as in panic disorder) (1). Nearly 30% of patients with BDD experience panic attacks that are triggered by BDD symptoms (e.g., when looking at perceived defects in the mirror, when feeling that others are scrutinizing them, or when in a place with bright lights) (12).

Although not designated by a specifier in DSM-5, BDD by proxy is a form of BDD in which an individual has distressing or impairing preoccupations with perceived defects in another person’s appearance (4). For example, a parent may be preoccupied with her toddler’s “pushed in” nose and not let the child leave the house or attend family gatherings because it would be too embarrassing for others to see his nose.

**KEY ASSOCIATED FEATURES**

Many patients feel embarrassed and ashamed by their supposed physical deformities (4). A majority experience BDD-related ideas or delusions of reference, falsely believing that others take special notice of them in a negative way because of their "defects" (e.g., stare at, talk about, or mock them) (6, 11). BDD is also associated with high levels of rejection sensitivity, social anxiety and avoidance, anxiety, depressed mood, neuroticism, and hostility, as well as low levels of self-esteem, extraversion, and assertiveness (4).

**EPIDEMIOLOGY**

In nationwide epidemiologic studies in adults, BDD is about as common as OCD, with a point (current) prevalence of 2.4% in the United States and 1.7%–1.8% in Germany (13–15). In epidemiologic samples, individuals with BDD are less likely to
be living with a partner or employed and are more likely to report suicidal ideation and suicide attempts due to appearance concerns (13, 14).

BDD also appears common in clinical settings, with a prevalence of 13%-16% among general psychiatric adult inpatients in the United States (16, 17). An inpatient study found that BDD was more common than OCD, schizophrenia, posttraumatic stress disorder, eating disorders, and a number of other disorders; patients with BDD had significantly lower scores on the Global Assessment of Functioning scale and twice the rate of suicide attempts as those without BDD (17). Among adolescent psychiatric inpatients, 7%-14% had current BDD (17, 18). BDD also appears fairly common in dermatology (9%-15%), cosmetic surgery (7%-15% in most studies), and orthodontia settings (8%), and among patients presenting for oral or maxillofacial surgery (10%-13%) (4, 19).

BDD is slightly more common in females than in males in epidemiologic samples (13-15); the largest clinical studies have similarly found a slight preponderance of females or an equal proportion of males and females (5, 6).

AGE AT ONSET AND COURSE OF ILLNESS

Two-thirds of persons with BDD experience BDD onset in childhood or adolescence, most often at age 12-13 years (20). BDD virtually never onsets after age ≥18 years (20). Those with onset before age 18 years are more likely to have attempted suicide and been psychiatrically hospitalized, and they have more comorbidity (20).

In the only prospective observational study of BDD’s course of illness, BDD tended to be chronic (21). In up to 4 years of follow-up, the cumulative probability of full remission was only 0.20, and the cumulative probability of full or partial remission was only 0.55. A lower likelihood of remission was predicted by being an adult, greater BDD severity at intake into the study, and longer lifetime duration of BDD. Subjects who partially or fully remitted during the follow-up period had a cumulative probability of subsequent full relapse of 0.42. The probability of subsequent full or partial relapse was 0.63, which was predicted by more severe BDD at study intake and earlier age at BDD onset. Most subjects received treatment in the community, but few received treatment currently considered adequate for BDD.

BDD IN YOUTH

BDD is particularly concerning in youth. Youth have poorer insight regarding their perceived appearance defects and are more likely than adults to attempt suicide (44% versus 24%) (22). At a trend level, youth have more severe BDD than adults with BDD and are more likely to be psychiatrically hospitalized (43% versus 24%) (22). An inpatient study found that youth with BDD had more severe anxiety and depression, as well as significantly higher scores on a standardized measure of suicide risk, than youth without significant body image concerns (18).

A substantial proportion of youth with BDD refuse to attend school because they feel too ugly to be seen, and 18%–22% drop out of school primarily because of BDD symptoms (22, 23). Because BDD often persists unless appropriately treated, it is important to identify and treat youth with BDD, especially those who attempt suicide or refuse to attend school. Untreated BDD in youth often impedes accomplishment of developmental tasks and transitions such as completing school, dating, and developing social competence. These deficits not uncommonly persist well into adulthood and may even be lifelong.

IMPAIRMENT IN PSYCHOSOCIAL FUNCTIONING

BDD is associated with markedly impaired psychosocial functioning and very poor mental health—physical health-related quality of life (24, 25). Scores on measures such as the Medical Outcomes Study 36-item Short-Form Health Survey are typically several standard deviation units below community norms and 0.4–0.7 SD units below norms for depression (24, 25). A prospective observational study found that the cumulative probability of attaining functional remission on the Global Assessment of Functioning (score >70 for at least 2 consecutive months) during the follow-up period (mean follow-up period of 2.7 ± 0.9 years) was only 5.7% (26). More severe BDD symptoms predict poorer functioning and quality of life (24–26).

More severely impaired individuals are completely socially isolated, quit their job or drop out of school, and are housebound (sometimes for many years) to avoid being seen (4, 6). Nearly 40% of individuals with BDD have been psychiatrically hospitalized, and more than one-quarter attribute at least one hospitalization primarily to BDD (5).

SUICIDALITY

A high proportion of individuals with BDD—higher than in OCD—experience suicidal ideation (about 80% lifetime) and attempt suicide (24%–28% lifetime) (27, 28). In a nationwide epidemiologic study, 31% of subjects with BDD reported thoughts about committing suicide specifically because of appearance concerns, and 22% had actually attempted suicide due to appearance concerns (14). Among psychiatric inpatients, those with BDD had double the suicide attempt rate as those without BDD (17). In a study of inpatients with anorexia nervosa, those with comorbid BDD had triple the number of suicide attempts as those without BDD (29). Suicide attempts often have high potential lethality and intent, and thus they must be taken seriously (27).

Suicidal ideation and suicide attempts are both independently predicted by greater BDD severity (27). In addition, suicidal ideation is associated with lifetime comorbid major depressive disorder, and suicide attempts are associated with lifetime comorbid posttraumatic stress disorder and a substance use disorder (27).

Completed suicide in BDD has been only minimally studied, but the rate appears markedly elevated; it may be
even higher than in bipolar disorder and major depressive disorder (30). In a retrospective 20-year study, most patients in two dermatology practices who committed suicide had acne or BDD (31).

Patients with BDD may feel suicidal because they feel hopeless about being “deformed,” feel they cannot improve how they look, feel rejected by others because they are “ugly,” feel socially isolated and mocked by others because of how they look (referential thinking), and believe they are unlovable and worthless. In addition, many have comorbid major depressive disorder (5, 32).

GENDER-RELATED ASPECTS OF BDD

BDD’s clinical features (e.g., demographics, body areas of concern, comorbidity, suicidality) have more similarities than differences in females and males (5, 33, 34). However, females appear more likely to be preoccupied with weight (being overweight), breasts, hips, legs, and “excessive” body hair; to check mirrors, pick their skin, and camouflage their bodies to hide disliked areas; and to have a comorbid eating disorder. Men appear more likely to be single; to be preoccupied with “small” body build (muscle dysmorphia), “thinning” hair, and genitals (often penis size); and to have a comorbid substance use disorder. Men also appear somewhat more impaired in terms of psychosocial functioning (e.g., to be unemployed and receiving disability payments).

COMORBIDITY

The largest samples of subjects assessed with the Structured Clinical Interview for DSM-IV indicate that about three-quarters of individuals with BDD have past or current major depressive disorder (6, 32). BDD usually onsets first, and many patients attribute depressive symptoms to the suffering caused by BDD (32). A past or current substance use disorder occurs in 30%–50% of individuals with BDD, nearly 70% of whom attribute their substance use problem at least in part to the distress caused by BDD (32, 35). About 20% of men with muscle dysmorphia abuse anabolic androgenic steroids to build muscle (9). These drugs may cause abuse or dependence and may have adverse physical and psychiatric effects, such as depressive symptoms when discontinuing use and aggressive behavior (“roid rage”). Nearly 40% of patients with BDD have past or current social anxiety disorder, and about one-third have past or current OCD (6, 32).

A PATIENT WITH BDD

Aaron, a 26-year-old single unemployed white man who lived with his parents, was brought by his parents for a diagnostic evaluation. His parents believed that he had BDD, but Aaron did not, and he was reluctant to come to the evaluation. He believed that a diagnosis of BDD did not apply to him because he truly was ugly, and he was scheduled for a cranioplasty to widen his skull, after having consulted 12 surgeons across the country. Aaron believed that his skull was too narrow (although measurements confirmed that it was within the normal range); he also believed that his nose was misshapen and too large, and he planned to have a rhinoplasty in the near future. Although these body areas looked normal, Aaron was convinced that he looked “deformed.” He obsessed about these perceived defects for 8–10 hours a day and spent 6–8 hours a day checking the disliked areas in mirrors, comparing his appearance with others (often celebrities), asking his parents to confirm that he looked ugly, and searching online for information about cosmetic surgery. He could not work and avoided virtually all social situations and relationships because he felt too ugly to be seen. He often felt suicidal because “life isn’t worth living if I look like a freak.”

EMERGING CLUES ABOUT BDD’S ETIOLOGY AND PATHOPHYSIOLOGY

Genetic Factors

Family studies indicate that BDD is more common in first-degree relatives of OCD probands than control probands, suggesting shared etiology (genetic and/or environmental) with OCD (36–38). Similarly, a twin study, which can tease apart genetic versus environmental influences, found that “dysmorphic concern” (a concept with similarities to BDD) has shared genetic vulnerability with other obsessive-compulsive and related disorders, including OCD; in addition, the study found BDD-specific genetic influences (heritability of 43%) (39).

Neurobiological Factors

Visual processing studies (e.g., using functional magnetic resonance imaging) suggest that individuals with BDD actually see things differently than those without BDD; they appear to exhibit a bias for encoding and analyzing details of faces and nonface objects such as houses (40–42). Holistic visual processing, which emphasizes a global and more integrated view of objects, appears disrupted, with local details of the face and body seeming to override the gestalt view of the whole. Small eye-tracking studies similarly suggested a hyperfocus on features or details instead of wholes (43, 44). Preliminary data also suggest abnormalities in executive functioning (45, 46). In addition, persons with BDD, compared with healthy controls, show relative hyperactivity in the left orbitofrontal cortex and bilateral head of the caudate when viewing their own face versus a familiar face, which may reflect the occurrence of obsessional preoccupation while viewing their own face (47). Although this study did not directly compare BDD to OCD, this activation pattern is characteristic of OCD.

A small structural MRI study found no volumetric differences between subjects with BDD and healthy controls, whereas two studies found greater total white matter volume in subjects with BDD (38). One study additionally found a leftward shift in caudate asymmetry, and the other additionally found a smaller orbitofrontal cortex and anterior
cingulate and larger thalamic volumes (38). BDD may also be characterized by compromised white matter fibers (reduced organization) and inefficient connections (48). Another study did not find this (although statistical power was limited) but did find a relationship between fiber disorganization and impaired insight in white matter tracts that connect visual with emotion/memory processing systems (49). A number of studies suggest involvement of frontostratal dysfunction in BDD (47).

Information Processing Biases
Individuals with BDD appear to have a bias toward interpreting neutral faces as contemptuous and angry, and ambiguous scenarios as threatening (50, 51), consistent with the occurrence of ideas/delusions of reference in BDD.

Psychological and Social/Environmental Factors
The above-noted twin study found that “dysmorphic concern” had unique disorder-specific environmental factors that were not shared by other obsessive-compulsive and related disorders (39). A history of teasing is one possible risk factor (52). Studies also suggest high rates of childhood neglect and/or abuse (53, 54). It is likely that sociocultural influences regarding the importance of appearance also play a role (4, 55).

Evolutionary Perspective
An evolutionary perspective may be relevant to BDD (e.g., a desire to attract mates or avoid social rejection) (3, 56). In animals, greater symmetry of body parts or the absence of facial defects (e.g., skin lesions) may signal reproductive health and fitness or absence of disease. Compulsive grooming in BDD has notable similarities to compulsive grooming behaviors in animals, such as acral lick syndrome in dogs and compulsive feather plucking in birds.

**BDD’S RELATIONSHIP TO OCD: SIMILARITIES AND DIFFERENCES**

BDD has received far less investigation than OCD; nonetheless, data are emerging on their similarities and differences, and a number of studies have directly compared them across various domains. (Replication studies and additional direct comparison studies are needed.) This section and Table 3 briefly summarize key findings; more detailed discussions are available elsewhere (36).

BDD is widely considered one of the disorders most closely related to OCD, based on similarities in a variety of domains (38). Examples are similar phenomenologic features, similarly chronic course, familiality, and other domains shown in Table 3. Psychosocial impairment is usually very poor in both disorders and perhaps even somewhat poorer in BDD (57). An important similarity is the apparent need for similarly high doses of SRIs as a first-line treatment. Although antipsychotic augmentation of SRIs appears less promising than in OCD, this approach has been only minimally studied in BDD, and a possible explanation is the low prevalence of

<table>
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<th>Comparisons</th>
<th>Data Sources</th>
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<tr>
<td><strong>Similarities</strong></td>
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<tr>
<td>Unwanted, distressing obsessions/preoccupations</td>
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<tr>
<td>Distressing repetitive behaviors (compulsions) that aim to reduce anxiety or distress and are functionally linked to obsessions/preoccupations</td>
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<tr>
<td>Similar BDD–YBOCS/Y-BOCS scores for individual items</td>
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<tr>
<td>High levels of perfectionism; high neuroticism, low extraversion</td>
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<tr>
<td>Course of illness (often chronic)</td>
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<td>Familiarity</td>
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<td>Overlapping genetic vulnerability?</td>
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<td>Abnormalities in frontostratal systems, including hyperactivity on fMRI in the orbitofrontal cortex and head of the caudate</td>
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<td>Relatively high doses of SRIs as first-line pharmacotherapy</td>
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<th>Differences</th>
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<tr>
<td>Different focus of obsessions, core beliefs, and compulsions</td>
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<tr>
<td>Poorer insight and more referential thinking in BDD (and more frequent paranoid personality disorder)</td>
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<tr>
<td>More frequent comorbid major depressive disorder and comorbid substance use disorders in BDD</td>
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<td>More frequent suicidality in BDD</td>
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<td>More childhood emotional and sexual abuse in BDD?</td>
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<td>Differences in translational studies (e.g., different structural MRI findings; greater frequency of threatening interpretations of ambiguous social and appearance-related information in BDD)</td>
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<td>Differences in CBT: In BDD, more complex and often longer treatment, with greater focus on cognitive techniques, and behavioral experiments; inclusion of perceptual retaining, habit reversal for skin picking and hair plucking/pulling, approaches for cosmetic surgery; greater need to address depressive symptoms</td>
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<tr>
<td>More intensive strategies (e.g., motivational interviewing) needed to engage and retain patients with BDD in treatment</td>
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*Replication studies and larger studies are needed; some, but not all, results are from studies that directly compared BDD and OCD; some findings are not specific to BDD and OCD (e.g., chronic course of illness, high levels of perfectionism). BDD, body dysmorphic disorder; CBT, cognitive-behavioral therapy; fMRI, functional magnetic resonance imaging; SRI, serotonin reuptake inhibitor; Y-BOCS, Yale-Brown Obsessive Compulsive Scale.
comorbid disorders in BDD (which is associated with treatment response in OCD).

However, studies that have directly compared BDD and OCD suggest that they also have some notable differences and are not identical disorders (Table 3) (3). Clinically important differences include the following: poorer insight in BDD (Figures 1 and 2 and discussion above) (10, 11, 58), greater suicidality in BDD (persons with BDD appear more likely to have lifetime suicidal ideation and attempt suicide because of their disorder) (8, 59), and a different CBT approach. In the author's experience, treating BDD with exposure and response prevention alone, and as if BDD were OCD, is unlikely to be successful. CBT for BDD is more complex and often lengthier than CBT for OCD. It usually requires a greater focus on motivational interviewing, cognitive approaches (because of poorer insight and referential thinking in BDD), and incorporation of behavioral experiments into exposure exercises (60). CBT for BDD also includes elements that are not relevant to CBT for OCD, such as mindfulness/perceptual retraining that targets visual processing abnormalities, habit reversal for BDD-related skin picking and hair plucking/pulling, and interventions that target problematic behaviors that are characteristic of BDD but not OCD, such as surgery seeking for CBT for OCD (60).

In a prospective longitudinal study, BDD symptoms persisted in a sizable proportion of participants who remitted from comorbid OCD (61). This finding suggests that BDD is not simply a symptom of OCD.

BDD also has similarities with other disorders, such as social anxiety disorder, with which BDD shares prominent shame, fear of being embarrassed and humiliated, rejection sensitivity, and social anxiety and avoidance (4, 62, 63). BDD shares distorted body image and appearance preoccupations with eating disorders. BDD also has features in common with depressive disorders and psychotic disorders. However, BDD differs in important ways from these other disorders (4). For example, direct comparison studies found that compared with anorexia nervosa and bulimia nervosa, BDD is characterized by poorer insight, more negative self-evaluation and self-worth, poorer functioning and quality of life due to appearance concerns, and more avoidance of activities (64–66).

HOW TO ASSESS PATIENTS FOR BDD

BDD is common but is usually undiagnosed in mental health settings (2, 4, 16, 17). Patients typically do not spontaneously reveal their appearance concerns because they are too embarrassed; they fear the clinician will negatively judge them (e.g., consider them vain) or not understand their concerns, or they do not know that psychiatric treatment may be helpful (16, 17). Furthermore, because insight is usually absent or poor, many patients believe that the BDD diagnosis does not apply to them (Figures 1 and 2). To detect BDD, clinicians usually need to ask patients about BDD symptoms (Table 4). Screening, diagnostic, severity, and insight measures for clinical and research purposes are freely available online (www.bodyimageprogram.com).

In most cases, diagnosing BDD is straightforward, especially when using questions such as those in Table 4 as a guide. The most complex differential is with eating disorders when patients present with concern that they weigh too much or that parts of their body are too fat (see below). Additional differential diagnosis issues are discussed below.

HOW TO DIFFERENTIATE BDD FROM DISORDERS WITH WHICH IT IS OFTEN CONFUSED

Treatment of BDD differs from that of other disorders, and thus it is important to differentiate BDD from them.

OCD

Obsessions that focus on perceived defects in one's physical appearance, including symmetry concerns, should be diagnosed as BDD, not OCD. (See discussion above and Table 3 for key similarities and differences between BDD and OCD.)

Excoriation (Skin-Picking) Disorder

When skin picking is done in response to concerns about perceived skin blemishes or other skin flaws, and picking intends to improve the skin's appearance, BDD should be diagnosed rather than excoriation (skin-picking) disorder.

Trichotillomania (Hair-Pulling Disorder)

When hair plucking or pulling is triggered by concerns that one's hair is ugly or looks abnormal (e.g., "excessive" facial hair or "asymmetrical" eyebrows), and the plucking intends to improve one's appearance, BDD should be diagnosed rather than trichotillomania (hair-pulling disorder).

Major Depressive Disorder

Depressive symptoms are common in BDD; they appear to often be secondary to the distress and impairment that BDD causes. BDD should be diagnosed in depressed individuals if diagnostic criteria for BDD are met.

Social Anxiety Disorder (Social Phobia)

Many patients with BDD fear being rejected and humiliated because they look abnormal; thus, social anxiety and social avoidance are very common in BDD (62, 63). When these symptoms are attributable to concerns about one's physical appearance, BDD should be diagnosed rather than social anxiety disorder.

Agoraphobia

Some people with BDD avoid public places or are housebound because they feel too ugly to be seen or fear that others will stare at them or mock them because of how they look. Such avoidance should be diagnosed as BDD, not agoraphobia.

Generalized Anxiety Disorder

Patients with BDD have excessive anxiety and worry about their appearance. Such anxiety and worry should not be attributed to generalized anxiety disorder.
Eating Disorders
As specified by DSM-5 criterion D, preoccupation with excessive weight or body fat that qualifies for an eating disorder diagnosis should not be diagnosed as BDD. When eating disorder symptoms do not meet full criteria for an eating disorder, it may be difficult to determine whether BDD or "other specified feeding and eating disorder" is the more accurate diagnosis; careful questioning and clinical judgment are needed to make the correct diagnosis.

Psychotic Disorders
Appearance beliefs in BDD are often delusional in nature, which should be diagnosed as BDD, with the absent insight specifier. Occasionally, a psychotic disorder diagnosis may be more appropriate (e.g., if a patient fears being persecuted by white supremacists for looking "ethnic" and has other persecutory delusions). BDD may be characterized by appearance-related delusions of reference but not by other psychotic symptoms, disorganized speech or behavior, or negative symptoms.

Gender Dysphoria
BDD should not be diagnosed if diagnostic criteria for gender dysphoria are met and appearance preoccupations focus only on genitals and secondary sex characteristics.

Olfactory reference syndrome. (preoccupation with emitting a foul body odor when no odor is clearly present) should be diagnosed as "other specified obsessive-compulsive and related disorder" rather than BDD.

Clearly noticeable physical defects. (e.g., due to an accident or congenital anomaly) that cause distressing or impairing preoccupations should be diagnosed as "other specified obsessive-compulsive and related disorder." If skin picking due to BDD concerns causes noticeable skin lesions or scarring, BDD should be diagnosed nonetheless.

TREATING BDD
Treatment Challenges and How to Address Them
Because poor or absent insight is so common in BDD, it can be difficult to engage and retain individuals with this disorder in psychiatric treatment. Before proceeding with implementation of medication or CBT, it is important to do the following: 1) Strive to build rapport, trust, and a strong therapeutic alliance by being nonjudgmental and expressing empathy for the patient's suffering. 2) Provide psychoeducation about BDD. Patients may benefit from reading about BDD (e.g., reference 4). 3) For patients who are considering cosmetic treatment, discuss the likelihood that the outcome will be poor. Cosmetic treatment can make BDD symptoms worse and may trigger legal action or even violent behavior toward clinicians who provide such treatment (67-69). 4) Convey that psychiatric treatment is likely to be helpful and encourage the patient to try it. 5) Address

| TABLE 4. Diagnostic Questions for Body Dysmorphic Disorder |
|---------------------------------|-----------------------------------------------------|
| **DSM-5 Criterion** | **Questions** |
| A: Preoccupation with perceived defects or flaws in appearance that are not observable or appear only slight to others | "Are you very worried about your appearance in any way?" or "Are you unhappy with how you look?"
| B: Repetitive behaviors in response to appearance concerns | "Is there anything you feel an urge to do over and over again in response to your appearance concerns?" Give examples of repetitive behaviors |
| C: Clinically significant distress or impairment in functioning | "How much distress do these concerns cause you?" Ask about anxiety, social anxiety, depression, feelings of panic, and suicidal thinking
| D: Concerns not better explained by an eating disorder | Ask diagnostic questions for anorexia nervosa, bulimia nervosa, and binge eating disorder |

**Muscle dysmorphia specifier**

"Are you preoccupied with the idea that your body build is too small or that you're not muscular enough?" Elicit a global belief about all of the perceived defects:

"What word would you use to describe how bad your [fill in disliked area] look?"

Optional: "Some people use words like unattractive, ugly, deformed, or hideous. The global belief must be inaccurate. Do not use beliefs that are true, such as "I don't look perfect" or "I want to look better."

"How convinced are you that these body areas look [fill in patient's global descriptor]?"
misconceptions about recommended treatment (e.g., that SRIs will be poorly tolerated or CBT exposures will be too difficult). 6) When patients resist treatment, focus on their suffering and poor functioning and on the potential for recommended treatments to alleviate their dysfunction and distress. 7) When patients are reluctant to try medication or CBT, try using motivational interviewing techniques that are tailored to BDD (60). 8) Do not try to talk patients, especially those with delusional beliefs, out of their appearance concerns. Rather, the clinician can note that people with BDD have a distorted and negative view of how they look, which differs markedly from the view that others have of them. Reasons for this mismatch in perception are not well understood, although overfocusing on tiny details and staring at themselves in the mirror at close range for long periods of time may possibly contribute to their distorted view. 9) Assess and monitor suicidal ideation. Treat more highly suicidal patients with an SRI, and encourage participation in CBT. For more highly suicidal patients, consider incorporating cognitive-behavioral approaches for suicidality into treatment (70). 10) Consider partial hospital or inpatient care for more severely ill or suicidal patients while keeping in mind that patients may resist such care because they feel too anxious being seen by other people. 11) Involve supportive family members if clinically appropriate. At the very least it can be helpful for them to understand the diagnosis, recommended treatment, and treatment rationale and to support recommended treatment.

Surgical, Dermatologic, Dental, and Other Cosmetic Treatment

A majority of individuals with BDD seek and receive cosmetic surgery (most often rhinoplasty, followed by breast augmentation), dermatologic treatment (e.g., topical acne agents and isotretinoin [Accutane]), dental treatment, and other types of cosmetic treatment for BDD concerns (67,68).

Most patients are dissatisfied with cosmetic treatment and find that it does not improve BDD symptoms; symptoms may worsen (28,67,68,71). In a survey of cosmetic surgeons, 43% of respondents reported that after surgery, 43% of patients with BDD were even more preoccupied with the treated "defects," and only 1% were free of their preoccupation (69). The concern switched to another body part in 39% of cases (69). Forty percent reported that a dissatisfied patient with BDD had threatened the surgeon legally and/or physically (69). Although such events are rare, dissatisfied patients have killed their physician or themselves (4,72).

Pharmacotherapy

SRI efficacy. No medications are approved by the Food and Drug Administration for BDD, because no pharmaceutical companies have sought this indication. However, SRIs, at adequately high doses, are considered the first-line somatic treatment for BDD (4,73-75). A placebo-controlled trial with fluoxetine, a blinded crossover trial of clomipramine versus desipramine, and four methodologically rigorous open-label SRI trials (two with fluvoxamine, one with citalopram, and one with escitalopram [N=15-30]) found that an adequately dosed SRI usually improves BDD-related preoccupations, repetitive behaviors, distress, and impairment in functioning, as well as associated features such as depression, anxiety, anger/hostility, and quality of life (75-77). SRIs also decrease suicidal ideation and protect against suicidality worsening in patients with BDD (78,79). No studies have directly compared the efficacy of different SRIs for BDD, but a prospective series from a clinical practice (N=90) found similar response rates for each type of SRI (80).

SRIs appear more efficacious than non-SRI antidepressants or other psychotropic medications, although data are limited. SRI monotherapy appears as efficacious for patients with delusional BDD beliefs as for those with nondelusional beliefs; thus, an SRI, rather than antipsychotic monotherapy, is recommended for patients with the absent insight/delusional beliefs specifier (4,75-77).

SRI dosing. A critical consideration is that it appears that SRI doses often need to be in the range used for OCD and are substantially higher than those typically used for many other disorders, such as depression (4,80). Patients often improve, or further improve, when the dose of an ineffective SRI is raised. Further improvement may also occur when the maximum SRI dose recommended by the pharmaceutical company is exceeded (4,75). However, 250 mg/day should not be exceeded for clomipramine, and the recent dosing limit for citalopram makes it a much less appealing option for treating BDD. Mean daily doses, and typical maximum doses, that the author has used are as follows: escitalopram, 29±12 mg (60 mg); fluoxetine, 67±24 mg (120 mg); fluvoxamine, 308±49 mg (450 mg); sertraline, 202±46 mg (400 mg); paroxetine, 55±13 mg (90 mg); clomipramine, 203±53 mg (250 mg); and citalopram, 66±36 mg (40 mg/day is the current dosing limit for patients aged <60 years) (4,80). It may be wise to obtain an electrocardiogram for patients receiving a high dose of escitalopram.

SRI trial duration. To determine whether an SRI is effective, patients should receive a trial of 12-16 weeks, while reaching a high dose (if needed and tolerated) for at least 3-4 of those weeks (4,75). The mean time for SRI response is 4-9 weeks (4,75). After 12-16 weeks, if the highest dose that is tolerated or recommended by the pharmaceutical company has been tried for at least 3-4 of those 12-16 weeks, clinicians should consider switching to another SRI or augmenting the SRI.

SRI switching and augmentation. One study found that 43% of patients who did not respond to an initial adequate SRI trial did respond to at least one subsequent adequate SRI trial (80). For patients who have partially improved with an SRI, it is often desirable to continue the SRI and augment it with another medication, such as buspirone. In a chart-review study, buspirone (57±15 mg/day) effectively augmented SRIs in 33% of trials, with a large effect size (80).
the only controlled augmentation study, pimozide was not more efficacious than placebo in augmenting fluoxetine (81). However, clinical experience suggests that adding an atypical antipsychotic such as ziprasidone or aripiprazole to an SRI is sometimes helpful. Chart-review studies and clinical experience suggest that occasionally patients may improve when an SRI is augmented with bupropion, lithium, methylenidate, or venlafaxine (80). If clomipramine is combined with a selective serotonin reuptake inhibitor, clomipramine and metabolite levels, pulse, and blood pressure should be monitored, and an electrocardiogram should be obtained.

Non-SRI monotherapy. Venlafaxine and levetiracetam improved BDD symptoms in small open-label trials; placebo-controlled trials are needed (82, 83). Given the limited evidence base, serotonin-norepinephrine reuptake inhibitors and other non-SRIs are not generally recommended as first-line treatments for BDD (4, 75).

Electroconvulsive therapy (ECT) studies in BDD are lacking. Case series data suggest that ECT is usually not effective, although ECT can be considered for highly suicidal patients or those with severe comorbid major depressive disorder (especially those who have been refractory to SRIs) (4). No studies have reported on the efficacy of deep brain stimulation or transcranial magnetic stimulation for BDD.

Cognitive-Behavioral Therapy

CBT that is tailored to BDD's unique clinical features is the best-studied psychotherapy for BDD and has been shown to be effective for a majority of patients (4, 73, 74). CBT that is specific for BDD, rather than CBT for other disorders, should be used. As discussed above, CBT for BDD has some similarities to CBT for OCD as well as important differences.

The only CBT study that used an adequate control group found that 12 weeks of BDD-focused CBT was more efficacious than 12 weeks of anxiety management for BDD (84). Outcomes further improved after four additional CBT sessions; gains were maintained at 1-month follow-up. CBT was as efficacious for delusional BDD as for non-delusional BDD.

Three studies that used a wait-list control group found that BDD-focused CBT (an additional study used metacognitive therapy) was often efficacious and more effective than no treatment (85-88). However, BDD can be difficult to treat with CBT, especially when patients are more severely ill and functionally impaired. Thus, it is recommended that therapists use a BDD-specific CBT treatment manual, which provides detailed guidance for the therapist. Two CBT treatment manuals for adults are available that have some published evidence to support their efficacy (60, 89). (No empirically based treatment manual is available for children and adolescents.)

Components of CBT for BDD

The treatment manuals noted above, and CBT approaches used in other studies, contain some overlapping techniques, such as cognitive restructuring, exposure, and response prevention; however, they also contain some distinct approaches. The treatment developed by the author and her colleagues has the following components (60).

Foundation for treatment. Because BDD is often difficult to treat and insight is often poor, more extensive initial groundwork is often needed than when treating other disorders with CBT. The first three or four sessions should be devoted to developing a good understanding of the patient's symptoms, providing psychoeducation, and building an individualized cognitive-behavioral model of the patient's illness to help the patient understand the rationale for CBT techniques. Meaningful treatment goals should be set. Motivational interviewing techniques are often needed during initial sessions and later in treatment to enhance motivation for treatment.

Cognitive restructuring. Patients learn to identify and evaluate their negative appearance-related thoughts and beliefs and to identify cognitive errors, such as fortune-telling, mind reading, and all-or-nothing thinking. They learn to develop more accurate and helpful appearance-related beliefs.

Exposure helps patients gradually face avoided situations, which are usually social situations. Behavioral experiments, in which patients design and carry out experiments to test the accuracy of their beliefs, are done during exposures.

Ritual (response) prevention helps patients cut down on repetitive behaviors, such as mirror checking, excessive grooming, and comparing.

Perceptual retraining, which includes mindfulness skills, helps patients develop a more holistic, rather than a detail-oriented, view of their appearance. Patients look in the mirror and, from head to toe, describe each part of their body (not just disliked areas) with neutral (not negative) language. This exercise takes only 5-10 minutes a day. It does not involve staring at disliked areas.

Advanced cognitive strategies address negative core beliefs; beliefs that one is worthless, unlovable, or inadequate are common in BDD.

Habit reversal (optional module) is used for BDD-related skin picking or hair picking/plucking.

Depression treatment (optional module), which focuses on activity scheduling and scheduling pleasant or meaningful activities, can be used for inactive patients or those with more severe depression.

Cosmetic treatment (optional module) is used for patients who desire, are seeking, or are receiving cosmetic treatment for BDD.

Body shape/weight concerns (optional module) addresses muscle dysmorphia and concerns with being overweight or fat.

Relapse prevention. At the end of treatment, patients prepare to terminate formal treatment and to continue to implement learned strategies.

Approaches that are not recommended include staring in mirrors (which reinforces the ritual of mirror checking), listening to audiotapes that say the patient is ugly, or creating
obvious “flaws” such as messing up one’s hair or painting bright red spots on one’s face before going out in public.

The duration of CBT should be tailored to each patient. Twelve to 16 weeks of weekly hour-long treatment is often inadequate; longer treatment, such as 24 weeks, is usually recommended (60, 87). More severely ill patients may need considerably longer treatment (e.g., 90 hours) (90). Completion of daily structured homework assignments is essential. After formal treatment ends, patients should continue to practice CBT skills on their own; booster sessions with the therapist should be done as needed. Patients who have not met developmental milestones or have been unemployed or socially isolated because of BDD may need vocational or social skills training after CBT.

Combined Pharmacotherapy and CBT

The efficacy of combined treatment versus monotherapy has not been studied; however, combined treatment is especially recommended for more severely ill patients. For those who are too ill or depressed to participate in CBT, initial improvement with medication may make CBT feasible.

Approaches for Treatment-Refractory BDD

Many, if not most, patients who appear treatment refractory have not received adequate treatment for BDD. Common problems include inadequate SRI doses, too brief an SRI trial, use of non-SRIs as monotherapy, or poor medication compliance. Most patients have not received CBT from a CBT-trained therapist using an evidence-based treatment manual with good homework compliance (these manuals were only recently developed) (60, 89). More treatment-refractory patients should receive both medication and CBT, and partial hospital or residential treatment that focuses on BDD can be considered.

FUTURE DIRECTIONS

Because BDD has received relatively little investigation, virtually all aspects of this disorder need to be studied. Treatment research is especially needed, including studies in children and adolescents. CBT studies with control groups that receive treatments commonly used in the community (e.g., supportive psychotherapy), studies of CBT augmentation of SRIs and vice versa, and studies of other psychotherapies, non-SRI medications, and other somatic treatments. Further investigation of the relationship between BDD and OCD is also needed. The need for this work is pressing given the substantial morbidity and mortality associated with BDD.

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