Body dysmorphic disorder: recognizing and treating imagined ugliness

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Body dysmorphic disorder (BDD), also known as dysmorphophobia, is a severe psychiatric disorder that occurs around the world. However, the diagnosis is usually missed in clinical settings. It is important to recognize and diagnose BDD, because this disorder is relatively common and causes significant distress and impairment in functioning. It is also associated with markedly poor quality of life. Although research on effective treatment is still limited, serotonin reuptake inhibitors (SRIs) are currently considered the medication treatment of choice. For symptoms to improve, a relatively high SRI dose and at least 12 weeks of treatment is often needed. The psychosocial treatment of choice is cognitive behavioral therapy, consisting of elements such as exposure, response prevention, behavioral experiments, and cognitive restructuring. Although knowledge of BDD is rapidly increasing, further research is needed on all aspects of this disorder, including treatment studies, epidemiology studies, and investigation of its cross-cultural features and pathogenesis.

Key words: Body dysmorphic disorder, dysmorphophobia, delusional disorder, somatoform disorders

Body dysmorphic disorder (BDD), also known as dysmorphophobia, is an underrecognized yet relatively common and severe mental disorder that occurs around the world. Patients with BDD believe they look ugly or deformed (thinking, for example, that they have a large and 'repulsive' nose, or severely scarred skin), when in reality they look normal. As a result of their appearance concerns, they may stop working and socializing, become housebound, and even commit suicide (1,2).

Enrico Morselli, a psychiatrist in Italy, first described BDD more than 100 years ago (3), noting that "The dysmorphophobic, indeed, is a veritably unhappy individual, who in the midst of his daily affairs, in conversations, while reading, at table, in fact anywhere and at any hour of the day, is suddenly overcome by the fear of some deformity ... (which) may reach a very painful intensity, even to the point of weeping and desperation". Other authors, including Kraepelin (4) and Janet (5), have described BDD over the past century, referring to it with terms such as 'dermatologic hypochondriasis', Schönheitshypochondrie ('beauty hypochondria'), and Hässlichkeitskümmerer ('one who is worried about being ugly') (1).

DSM-IV classifies BDD as a separate disorder, defining it as a preoccupation with an imagined defect in appearance; if a slight physical anomaly is present, the person's concern is markedly excessive (6). The preoccupation causes clinically significant distress or impairment in social, occupational, or other important areas of functioning, and it cannot be better accounted for by another mental disorder, such as anorexia nervosa. DSM-IV classifies BDD as a somatoform disorder, but classifies its delusional variant as a psychotic disorder (a type of delusional disorder, somatic type). (However, delusional patients may be diagnosed with both BDD and delusional disorder, reflecting clinical impressions and empirical evidence that delusional and nondelusional BDD are probably the same disorder, which spans a spectrum of insight [7].) ICD-10 also groups BDD with the somatoform disorders, but unlike DSM-IV classifies BDD as a type of hypochondriasis (8); it classifies delusional BDD as a type of 'other persistent delusional disorders'.

CLINICAL FEATURES

Individuals with BDD obsess that there is something wrong with how they look, even though the perceived appearance flaw is actually minimal or nonexistent (1,2,9-14). They may describe themselves as looking unattractive or deformed, or even hideous or like a monster. Concerns most often focus on the face or head (e.g., acne or skin color, balding, or head size) but can include any body area or the entire body, and concern with multiple body areas is typical. The appearance preoccupations are difficult to resist or control, and on average consume 3 to 8 hours a day. They are often associated with fears of rejection and feelings of low self-esteem, shame, embarrassment, unworthiness, and being unlovable. Insight is usually poor, and nearly half of patients are delusional (i.e., completely certain that they look abnormal and that their view of the 'defect' is accurate) (2,7). In addition, a majority have ideas or delusions of reference, thinking that others take special notice of the 'defect', perhaps staring at it, talking about it, or mocking it.

Most patients perform repetitive, compulsive behaviors aimed at examining, improving, or hiding the 'defect' (1,2,9-14). Common behaviors include mirror checking, comparing with others, excessive grooming (e.g., applying makeup, hair styling), camouflaging (e.g., with a hat, clothes, or makeup), frequent clothes changing, reassurance seeking, skin picking, and eating a restricted diet.

These behaviors typically occur for many hours a day and are difficult to resist or control.

Some studies report an approximately equal gender ratio (15), whereas others report a preponderance of men (11) or women (12,16) (although referral biases are evident in some reports). A majority of patients have never been married, and a relatively high proportion are unemployed (7,13). The disorder's clinical features appear generally similar in women and men, although several differences are apparent (15,17).

BDD usually begins during early adolescence and can occur in childhood. Although there is a dearth of research in this age group, BDD's clinical features in children and adolescents appear similar to those in adults (18). Prospective studies of BDD are lacking, but available data indicate that the disorder is typically chronic, often with waxing and waning symptoms (10).

Most BDD patients seen in psychiatric settings have other mental disorders. Most studies have found that major depression is the most common comorbid disorder, with the largest study (n=293) reporting a current rate of 58% and a lifetime rate of 76% (19). In this study, onset of major depression most often occurred after onset of BDD, consistent with clinical impressions that depression is often (although not always) secondary to BDD. Substance use disorders, social phobia, obsessive compulsive disorder (OCD), and personality disorders (most often, avoidant) also commonly co-occur with BDD (10,19).

IMPAIRMENT IN FUNCTIONING, DISTRESS, AND QUALITY OF LIFE

Although level of functioning varies, BDD nearly always causes impaired functioning - often to a marked degree - as well as other complications (1,2,7,9,13,18). Social impairment is nearly universal. Individuals with BDD may have few or no friends, and may avoid dating and other social interactions. Most patients also have impaired academic, occupational, or role functioning. BDD obsessions, behaviors, or self-consciousness about being seen often diminish concentration and productivity. Patients not uncommonly drop out of school or stop working. In one series, nearly 30% had been completely housebound for at least one week, more than half had been psychiatrically hospitalized, more than two thirds had experienced suicidal ideation due to BDD, and nearly 30% had attempted suicide (7). A study of dermatology patients who committed suicide reported that most had acne or BDD (20).

BDD patients experience unusually high levels of perceived stress (21) and markedly poor quality of life. In a study that assessed health-related quality of life with the Short Form Health Survey (SF-36), outpatients with BDD (n=62) scored notably worse in all mental health domains than norms for the general US population and for patients with depression, type II diabetes, or a recent myocardial infarction (22). More severe BDD symptoms were associated with poorer mental health-related quality of life.

CULTURAL ASPECTS OF BDD

BDD has been reported in numerous countries and continents around the world - not only the US, Canada, Australia, and many countries in Eastern and Western Europe, but also China, Japan, the former Soviet Union, South America, Africa, and others (e.g., 1, 23-27). However, the largest systematic phenomenology studies of BDD, to my knowledge, are from the US (n=293 [20] and n=50 [11]), Italy (n=58) (13), and England (n=50) (12). Thus, reports from these countries have shaped much of our knowledge of BDD's clinical features.

Only one cross-cultural study has been done, which compared BDD's prevalence in nonclinical samples of American (n=101) and German (n=133) students, finding similar rates in the two groups (4.0% of Americans and 5.3% of Germans) (28). No cross-cultural studies have compared BDD's clinical features in community or clinical samples. Nonetheless, published case reports and series from around the world suggest that BDD's clinical features are generally similar across cultures, but that culture may produce nuances and accents on an apparently invariant, or universal, expression of BDD. For example, case series from Japan suggest that BDD's clinical features in that country are generally similar to those in other countries; however, concern with the eyelids and with causing others displeasure (by appearing unattractive) may be more common than in Western cultures.

Questions have been raised as to whether koro is related to BDD. Koro, a culture-related syndrome occurring primarily in Southeast Asia, is characterized by a preoccupation that the penis (labia, nipples, or breasts in women) is shrinking or retracting and will disappear into the abdomen, resulting in death (29). While koro has similarities to BDD, it differs in its usually brief duration, different associated features (usually fear of death), response to reassurance, and occasional occurrence as an epidemic.

PREVALENCE

Although large epidemiologic surveys of BDD's prevalence have not been done, studies to date indicate that BDD is relatively common in both nonclinical and clinical settings (14). Studies in community samples have reported current rates of 0.7% and 1.1%, and studies in nonclinical student samples have reported rates of 2.2%, 4%, and 13% (14). A study in a general inpatient setting found that 13% of patients had BDD (30). Studies in outpatient settings have reported rates of 8%-37% in patients with OCD, 11%-13% in social phobia, 26% in trichotillomania, 8% in major depression, and 14%-42% in atypical major depression (14). In one study of atypical depression, BDD was more than twice as common as OCD (31), and

in another (32) it was more common than many other disorders, including OCD, social phobia, simple phobia, generalized anxiety disorder, bulimia nervosa, and substance abuse or dependence. In a dermatology setting, 12% of patients screened positive for BDD, and in cosmetic surgery settings, rates of 6%-15% have been reported (14).

BDD is underdiagnosed, however. Two studies of inpatients (2,30), as well as studies in general outpatients (33) and depressed outpatients (31), systematically assessed a series of patients for the presence of BDD and then determined whether clinicians had made the diagnosis in the clinical record. All four studies found that BDD was missed by the clinician in every case in which it was present. Thus, underdiagnosis of BDD appears very common.

DIAGNOSING BDD

BDD may be difficult to diagnose because many patients are too ashamed to reveal their symptoms, fearing that their concerns will be trivialized or considered vain (9). Unless BDD is specifically asked about, the diagnosis is easily missed. Not diagnosing BDD is problematic because treatment may be unsuccessful, and the patient may feel misunderstood and inadequately informed about the diagnosis and treatment options. BDD can be diagnosed using the following questions (9), which reflect its DSM-IV criteria:

1) Are you very worried about your appearance in any way? (*OR:* Are you unhappy with how you look?) *If yes:* what is your concern?

2) Does this concern preoccupy you? That is, do you think about it a lot and wish you could worry about it less? How much time do you spend thinking about *(fill in body areas of concern*)?

3) What effect has this preoccupation with your appearance had on your life? Has it:

- Significantly interfered with your social life, school work, job, other activities, or other aspects of your life?
- Caused you a lot of distress?
- Affected your family or friends?

BDD is diagnosed in people who are 1) concerned about a minimal or nonexistent appearance flaw, 2) preoccupied with the perceived flaw (think about it for at least an hour a day), and 3) experience clinically significant distress or impaired functioning as a result of their concern.

BDD should be inquired about when patients have referential thinking, are housebound, have unnecessary surgery or dermatologic treatment, or present with social anxiety, depression or suicidal ideation.

To diagnose BDD, ICD-10 and certain diagnostic instruments require that patients refuse to accept the advice and reassurance of one or more doctors. This requirement will result in underdiagnosis of BDD, because many patients, despite having severe symptoms, do not seek medical help or reveal their symptoms because of shame, limited access to health care, or other reasons. Furthermore, screening measures for the somatoform disorders that are based on the presence of physical symptoms are also likely to underdiagnose BDD, because BDD only rarely presents with physical symptoms typical of other somatoform disorders. In fact, preliminary data suggest that BDD patients do not have elevated levels of somatization (31).

Patients may present to clinicians revealing only anxiety, depression, or suicidal ideation (9). Consequently, BDD may be misdiagnosed as social phobia or agoraphobia (due to secondary social anxiety and isolation) or as panic disorder (because situational panic attacks may occur, for example, when looking in the mirror). Often, BDD is missed in depressed patients, in whom only depression is diagnosed. BDD is commonly misdiagnosed as OCD (because both disorders are characterized by obsessions and compulsive behaviors) and may also be misdiagnosed as trichotillomania (in patients who cut or pluck their hair to improve their appearance). Delusional BDD is sometimes misdiagnosed as schizophrenia or psychotic depression.

TREATMENT

Although treatment research is still limited, serotonin reuptake inhibitors (SRIs) and cognitive-behavioral therapy (CBT) are currently the treatments of choice (34,35). Available data indicate that SRIs, but not other medications or electroconvulsive therapy, are often efficacious for BDD, even for delusional patients (34). Following reports of cases that responded to SRIs (36), a largely retrospective study of 30 patients found that 58% responded to SRIs compared to only 5% for other medications (2); an expansion of this study (n=130) yielded similar findings (34). Another retrospective study (n=50) similarly found that SRIs were more effective than non-SRI tricyclics (37). Two prospective open-label studies of the SRI fluvoxamine found that two thirds of patients responded (38,39). In a prospective study of the SRI citalopram, 11 of 15 patients responded; functioning and quality of life, as well as BDD symptoms, significantly improved (40).

Only two controlled pharmacotherapy studies have been done; additional controlled studies are needed. In a double-blind cross-over trial (n=29 randomized patients), the SRI clomipramine was more effective than the non-SRI antidepressant desipramine (41). In the only placebo-controlled study (n=67 randomized patients), the SRI fluoxetine was more effective than placebo (42). Of note, available data consistently indicate that SRIs are effective even for delusional BDD (7,39,41,42), whereas delusional BDD does not appear to respond to antipsychotics alone (34).

Although dose-finding studies are lacking, BDD appears to often require higher doses than typically used

for depression. In a chart-review study (n=90), the mean SRI doses were 66.7 ± 23.5 mg/day of fluoxetine, 308.3 ± 49.2 mg/day of fluvoxamine, 55.0 ± 12.9 mg/day of paroxetine, 202.1 ± 45.8 mg/day of sertraline, and 203.3 ± 52.5 mg/day of clomipramine (43). Some patients respond only to doses higher than the maximum recommended dose (e.g., 80-100 mg/day of citalopram or paroxetine). In most studies, which used fairly rapid dose titration, the average time required for BDD to respond was 6-9 weeks, with some patients requiring 12 or even 14 weeks (34). It is therefore recommended that patients receive an SRI for at least 12 weeks before switching to another SRI, and that the highest SRI dose recommended by the manufacturer (if tolerated) be reached if lower doses are ineffective. Long-term treatment appears often necessary (34).

There are only limited data on SRI augmentation strategies (34). Adding buspirone (40-90 mg/day) or combining clomipramine with an SSRI may be helpful (although clomipramine levels must be monitored). Adding an antipsychotic to an SRI is worth considering for delusional patients, although this strategy has received limited investigation. Agitated or highly anxious patients often benefit from a benzodiazepine in addition to an SRI. Patients who fail one adequate SRI trial may respond to another SRI or venlafaxine. If none of these strategies is effective, an MAO inhibitor may be worth trying.

Although psychotherapy research is also limited, CBT appears to often be effective (35). Most studies have combined cognitive components (e.g., cognitive restructuring aimed at challenging faulty appearance-related beliefs) with behavioral components, consisting mainly of exposure and response prevention (ERP) to reduce social avoidance and repetitive behaviors (such as mirror checking and excessive grooming). Early case reports indicated a successful outcome with exposure therapy (44) and cognitive plus behavioral techniques (45). In a subsequent series of 17 patients who received 4 weeks of daily individual 90-minute CBT sessions (20 total sessions), BDD symptom severity significantly decreased (46). In an open series of 13 patients treated with group CBT, BDD significantly improved in twelve 90-minute group sessions (47). In a study of 10 participants who received thirty 90-minute individual ERP sessions without a cognitive component, plus 6 months of relapse prevention, improvement was maintained at up to 2 years (48).

Two wait-list controlled studies have been published. In a randomized pilot study of 19 patients, those who received 12 weekly sessions of 60-minute individual CBT improved significantly more than those in a no-treatment wait-list control condition (49). In another study (n=54), women randomized to cognitive therapy plus ERP (provided in 8 weekly 2-hour group sessions) improved more than those randomized to a no-treatment wait-list control condition (16) (However, patients appeared to have relatively mild BDD, and most had body weight and shape concerns, making it difficult to determine the applicability of the results to more severely ill patients with more typical BDD symptoms.)

The above findings are very promising, but more rigorously controlled studies are needed. Also requiring investigation are the optimal number, duration, and frequency of sessions as well as the relative efficacy of group versus individual treatment. It is not known whether behavioral treatment (ERP) alone is usually effective or whether cognitive restructuring and behavioral experiments are a necessary treatment component because of the poor insight and depression so often characteristic of BDD. A broadly applicable treatment manual is not available and is needed. It is also not known whether SRIs or CBT is more effective, or whether their combination is more effective than either treatment alone. However, for patients with severe BDD, especially very depressed or suicidal patients, an SRI is recommended, as partial response may make CBT more tolerable and enable patients to participate in CBT treatment.

Before instituting an SRI and/or CBT, it is important to provide psychoeducation on BDD. Many patients appreciate referrals to books or websites (e.g., 9,50). For patients who are reluctant to accept the diagnosis and treatment (e.g., delusional patients), it can be helpful to emphasize that treatment is likely to decrease their suffering and improve functioning.

Research on insight-oriented and supportive psychotherapy is extremely limited but suggests that BDD symptoms - especially severe symptoms - are unlikely to significantly improve with these treatments alone (2). However, they can be helpful for other problems the patient may have and may be a useful adjunct to CBT and/or an SRI.

A majority of patients with BDD seek and receive surgery or nonpsychiatric medical (e.g., dermatologic) treatment. Some, in desperation, even do their own surgery - for example, attempting a facelift with a staple gun or trying to replace their nose cartilage with chicken cartilage in the desired shape (9,51). Although prospective studies are lacking, such treatments appear to usually be ineffective. In the largest study (n=250 adults from a psychiatric setting), only 7% of all nonpsychiatric treatments led to improvement in both concern with the treated body area and BDD more generally (52). Systematic treatment outcome studies of patients who clearly have BDD have not been done in nonpsychiatric settings, but observations in the dermatology and surgery literature generally indicate that the outcome of such treatments tends to be poor (53,54). Occasional dissatisfied patients commit suicide or are violent toward the treating physician (1).

CONCLUSIONS

BDD is a severe and relatively common psychiatric disorder that occurs around the world. However, it usually goes undiagnosed in clinical settings. It is important to

diagnose BDD, as it causes significant impairment in functioning and is associated with markedly poor quality of life. SRIs and CBT are currently considered the treatments of choice. However, studies of all aspects of BDD are needed - in particular, treatment studies, epidemiology studies (in which BDD symptoms are specifically inquired about and differentiated from other disorders such as hypochondriasis and OCD), cross-cultural studies, and investigation of BDD-related disability and the disorder's cost and burden to society. Research is also needed on whether BDD may be more closely related to social phobia, OCD, or depression than to most of the other somatoform disorders with which it is classified. Research on BDD's pathogenesis, including its underlying neurobiology, has just begun; such work may ultimately lead to more effective treatments and prevention of this severe mental disorder.

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