Body dysmorphic disorder

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Body dysmorphic disorder (BDD) is a relatively common disorder that consists of a distressing or impairing preoccupation with imagined or slight defects in appearance. BDD is commonly considered to be an obsessive-compulsive spectrum disorder, based on similarities it has with obsessive-compulsive disorder. It is important to recognize and appropriately treat BDD, as this disorder is associated with marked impairment in psychosocial functioning, notably poor quality of life, and high suicidality rates. In this review, we provide an overview of research findings on BDD, including its epidemiology, clinical features, course of illness, comorbidity, psychosocial functioning, and suicidality. We also briefly review recent research on neural substrates and cognitive processing. Finally, we discuss treatment approaches that appear efficacious for BDD, with a focus on serotonin-reuptake inhibitors and cognitive-behavioral therapy.

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Body dysmorphic disorder (BDD) is a *DSM-IV* disorder that is characterized by a distressing or impairing preoccupation with slight or imagined defect(s) in one's physical appearance. BDD has been consistently described around the world for more than a century.[1,2] Enrico Morselli, an Italian physician who called this disorder "dysmorphophobia," offered this poignant description in 1891: "The dysmorphophobic patient is really miserable; in the middle of his daily routines, conversations, while reading, during meals, in fact everywhere and at any time, is overcome by the fear of deformity… which may reach a very painful intensity, even to the point of weeping and desperation".[3] BDD was later described by distinguished psychiatrists such as Emil Kraepelin and Pierre Janet[4,5] and, over the years, numerous case studies have been reported from around the world.[6]

Despite its long history, BDD has been researched in a sustained and systematic way for less than two decades. During this time, much has been learned about the disorder, including its clinical features, epidemiology, and treatment. While still very preliminary, data are beginning to emerge on BDD's neurocognitive deficits and underlying neurobiology. BDD is becoming better known, but it remains underrecognized.[7-11] Because BDD causes substantial suffering and impairment in functioning, there is a need for increased recognition of this often-debilitating condition across all specialties.[12]

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Definition and classification of BDD

Here we provide *DSM-IV*'s definition of BDD and briefly comment on each diagnostic criterion.

A) "Preoccupation with an imagined defect in appearance. If a slight physical anomaly is present, the person's concern is markedly excessive." The most common preoccupations focus on the skin (eg, scarring, acne, color), hair (eg, going bald, excessive facial or body hair), or nose (eg, size or shape), although any body part can be the focus of concern.[13] "Preoccupation" in criterion A is not operationalized, but it is often defined as thinking about the perceived appearance defect(s) for at least 1 hour a day (similar to obsessive-compulsive disorder [OCD]).[1,14,15]

B) "The preoccupation causes clinically significant distress or impairment in social, occupational, or other important areas of functioning." As in other disorders, distress and impairment in functioning vary in terms of severity. But typically, patients experience substantial impairment in social, occupational, and academic functioning, as will be discussed later in this review.

C) "The preoccupation is not better accounted for by another mental disorder (eg, dissatisfaction with body shape and size in anorexia nervosa)." This criterion indicates that if a person's only appearance concern is that he/she weighs too much or is too fat, and the person meets diagnostic criteria for anorexia nervosa or bulimia nervosa, then the eating disorder, rather than BDD, is diagnosed. However, BDD and eating disorders are frequently comorbid, in which case both disorders should be diagnosed.[16,17]

DSM first included BDD in the third edition (*DSM-III*), where it was called "dysmorphophobia."[18] In *DSM-III*, it was an example of an atypical somatoform disorder (the "atypical" designation was similar to *DSM-IV*'s "Not Otherwise Specified" category), and diagnostic criteria were not provided. BDD was first given diagnostic criteria, and classified as a separate disorder (a somatoform disorder), in *DSM-III-R*, where it was called "body dysmorphic disorder."[19] In the current edition of *DSM* (*DSM-IV-TR*), BDD is also classified as a somatoform disorder.[15] ICD-10 classifies BDD, along with hypochondriasis, as a type of "hypochondriacal disorder," also in the somatoform section.[20] During the *DSM-IV* development process, consideration was given to moving BDD to the anxiety disorders section of *DSM*, but there were insufficient data at that time to determine whether this change was warranted.[21] Under consideration for *DSM-5* is whether BDD might be included in a section of "Anxiety and Obsessive-Compulsive Spectrum Disorders," although it is not yet known whether such a section will be included in *DSM-5*.[22]

A clinically important issue is how BDD's delusional variant (in which patients are completely convinced that they appear ugly or abnormal) should be classified. In *DSM-IV*, BDD's delusional variant is classified as a type of delusional disorder, somatic type, in the psychosis section of the manual.[15] However, *DSM-IV* allows BDD and its delusional disorder variant to be doublecoded; in other words, patients with delusional BDD can receive a diagnosis of both delusional disorder and BDD.[15] This double coding reflects evidence that BDD's delusional and nondelusional variants may in fact be variants of the same disorder.[7,23,24] Importantly, BDD's delusional variant appears to respond to treatment with serotonin-reuptake inhibitor (SRI) monotherapy, and, although data are very preliminary, treatment with neuroleptics does not appear promising.[25,26] During the *DSM-5* development process, consideration is being given to combining BDD's delusional variant with its nondelusional variant into one disorder (BDD) while specifying degree of insight (with good or fair insight, with poor insight, or with delusional BDD beliefs).[17]

Epidemiology

BDD appears to be relatively common. Epidemiologic studies have reported a point prevalence of 0.7% to 2.4% in the general population.[27-30] These studies suggest that BDD is more common than disorders such as schizophrenia or anorexia nervosa.[15] Investigations in nonclinical adult student samples have yielded higher prevalence rates of 2% to 13%.[31-35]

BDD is commonly found in clinical settings, with studies reporting a prevalence of 9% to 12% in dermatology settings, 3% to 53% in cosmetic surgery settings, 8% to 37% in individuals with OCD, 11% to 13% in social phobia, 26% in trichotillomania, and 14% to 42% in atypical major depressive disorder (MDD).[8,36-49] Studies of psychiatric inpatients have found that 13% to 16% of patients have *DSM-IV* BDD.[9,50] A study of adolescent inpatients found that 4.8% of patients had BDD.[10]

These studies indicate that BDD is relatively common. However, these estimates may underreport its prevalence. Many individuals with BDD feel ashamed of their

appearance and the fact that they are so focused on it. As a consequence, they may not report their BDD symptoms to clinicians. In one study of psychiatric inpatients, only 15.1% had revealed their body image concerns to their mental health clinicians, and the most common reason for not disclosing their concerns was embarrassment (in 31.3%).[50] Furthermore, in five studies in which adults were systematically screened for BDD, no patient who was found by the researchers to have BDD had the diagnosis of BDD in their medical record.[7-11] The number of patients found to have BDD were as follows: 30 of 30, 11 of 80, 16 of 122, 10 of 208, and 16 of 122.

Demographic characteristics

BDD has been reported to occur in children as young as 5 and in adults as old as 80.[6,51] Regarding gender ratio, the two largest population-based studies of BDD (one conducted in the US; n=2048, and the other conducted in Germany; n=2552) found a point prevalence of 2.5% of women vs 2.2% of men, and 1.9% of women and 1.4% of men, respectively.[28,30] The largest clinical samples of persons ascertained for BDD contained an equal proportion of females and males (49% of 188 participants were female)[52] or a somewhat higher proportion of females (68.5% of 200 participants).[53] Thus, BDD may be somewhat more common in women, but it clearly affects many men as well.

The two population-based studies cited earlier found that individuals with BDD are less likely to be married than those without BDD,[28,30] and are more likely to be divorced. Individuals with BDD are also significantly more likely to be unemployed than the general population.[28,30] In a sample of 200 individuals with BDD, 37.6% were currently unemployed.[54]

Case description

Ms A, a 32-year-old single white female, was referred by her dermatologist to a BDD specialty clinic. She lived alone, was not involved in a romantic relationship, and had no children. Despite having completed college, she was employed as a part-time clerk in a clothing boutique. Ms A attributed her difficulties with obtaining full-time work to interference she experienced from intrusive thoughts and compulsive behaviors related to her appearance concerns.

Ms A looked normal but had been preoccupied with the appearance of her skin (minor blemishes and "uneven" skin tone) since age 13. She reported thinking about her appearance for at least 7 to 8 hours a day, and she worried that other people would notice her or judge her negatively because her skin looked so "ugly." For 5 to 6 hours a day, Ms. A checked her skin in mirrors and other reflecting surfaces, picked her skin, and compared her skin with that of other people. She spent thousands of dollars a year on skin-care products, and she frequently bought special lighting and mirrors to better examine her skin.

Because she was so preoccupied with, and distressed by, her skin, Ms A was often late for work, and her productivity suffered, which resulted in conflicts with her supervisor. She often got "stuck" in the mirror at work, examining her skin. Because Ms A was so embarrassed about how she looked, and feared that other people would judge her negatively (eg, as "abnormal looking" and "hideous"), Ms A avoided all contact with friends and saw her family only on special occasions. Ms A reported feeling anxious and depressed over her skin. She also expressed passive suicidal ideation because she thought her skin looked so ugly.

Ms A had seen several dermatologists for treatment to improve her skin's appearance. Her compulsive skin picking was intended to improve perceived skin flaws by "smoothing" her skin and removing tiny blemishes. However, because her skin picking was difficult to control and occurred for several hours a day, this behavior caused skin irritation and slight redness and scarring. Ms A had undergone three dermatologic procedures but continued to be "obsessed" with improving the quality of her skin. "I just want to look normal!" she stated. Ms A reported that the dermatologic procedures had done little to change her perception of her skin's appearance and made her feel even more anxious and preoccupied. This was the first time Ms A had sought mental health treatment for her skin concerns. In the past, she had been reluctant to discuss her concerns with a mental health clinician for fear that she would be perceived as "superficial" or "vain."

Appearance preoccupations

The most frequent body areas of concern are the skin (73%), hair (56%), and nose (37%).[52,55] However, any body area can be the focus of preoccupation. On aver-

age, over their lifetime, persons with BDD are preoccupied with 5 to 7 different body parts.[52,55] Some individuals are preoccupied with their overall appearance; this includes the muscle dysmorphia form of BDD which consists of the belief that one's body is too small and inadequately muscular.[56-58]

Approximately 40% of individuals with BDD actively think about the disliked body parts for 3 to 8 hours per day, and 25% report thinking about them for more than 8 hours per day.[6] These preoccupations are almost always difficult to resist or control, and they are intrusive and associated with significant anxiety and distress.[1]

Insight regarding perceived appearance defects

Insight regarding the perceived appearance defects varies. In one sample, 35.6% of participants were classified on the reliable and valid Brown Assessment of Beliefs Scale (BABS[59]) as delusional—that is, completely certain that their beliefs about how they look were accurate.[60] Prior to effective treatment, few patients have good insight. Studies have consistently found that insight is poorer in BDD than in OCD, with 27% to 60% of BDD patients having delusional beliefs versus only 2% of OCD patients.[13,61]

About two thirds of BDD patients have past or current ideas or delusions of reference, believing that other people take special notice of them in a negative way or mock or ridicule them because of how they look.[23] Clinical impressions indicate that such referential thinking may lead to feelings of rejection and to anger (even violence, such as attacking someone they believe is mocking them).[1]

As previously noted, patients with delusional BDD beliefs would receive a *DSM-IV-TR* diagnosis of delusional disorder, or *DSM-IV-TR* diagnoses of both delusional disorder and BDD. Studies comparing delusional and nondelusional BDD patients reveal more similarities than differences between the two groups, and that the primary difference is BDD symptom severity.[23,25,60] Importantly, delusional BDD appears to respond to SRI monotherapy and may not respond to antipsychotic medications, suggesting (from a treatment perspective) that delusional BDD is not a typical psychotic disorder.[26] Thus, it may be more accurate to view insight as existing on a continuum and to consider BDD to encompass both delusional and nondelusional appearance beliefs.[62]

Furthermore, some individuals with BDD describe fluctuations in insight, such that they are completely convinced that they are ugly at some times but not convinced at others.[6] As one patient remarked: "Some days I think my skin's not so bad, but other days I'm convinced."[1] Observations such as these offer further support for the view that delusional BDD and nondelusional BDD constitute the same disorder, characterized by a range of insight, rather than being different disorders.

Compulsions, safety behaviors, and avoidance

The *DSM-IV-TR* diagnostic criteria for BDD make no reference to compulsive and safety behaviors that are commonly associated with BDD; during the *DSM-5* development process, consideration is being given to adding these symptoms to BDD's diagnostic criteria.[17] Indeed, nearly everyone with BDD performs specific behaviors—such as mirror checking and skin picking, as illustrated in the above case—that are linked to their appearance preoccupations.[52,55] The relationship between thoughts and behaviors in BDD appears similar to the relationship between obsessions and compulsions in OCD. That is, the compulsive behaviors arise in response to the obsessive thoughts about appearance, and are meant to reduce anxiety and other painful emotions.[13] As in OCD, the behaviors are not pleasurable.[13]

These compulsive behaviors are repetitive, time-consuming (about half of BDD patients spend 3 or more hours per day engaged in them), and hard to control and resist.[63] Some behaviors, such as camouflaging disliked body parts (eg, with a hat, makeup, sunglasses), are called safety behaviors, because their function is to reduce or avoid painful emotions or prevent something bad from happening, such as being humiliated or embarrassed.[1]

Most BDD patients perform multiple compulsive behaviors.[52,55] One common behavior is comparing themselves with other people. Clinical impressions suggest that this usually happens quite automatically, and can cause anxiety and inability to concentrate. About 90% of BDD patients check themselves repeatedly and excessively in mirrors or other reflective surfaces.[1] Typically, they do this in the hope that they look acceptable, but often, after seeing their reflection, they feel worse.[64] Other common repetitive behaviors are excessive grooming (eg, combing their hair or washing their skin repeatedly), tanning (to improve their skin color or skin imperfections), reas-

surance seeking (asking whether one's appearance is acceptable), excessive shopping for beauty products, changing their clothes repeatedly to find a more flattering outfit, and excessive exercise (eg, weightlifting in the case of muscle dysmorphia).[1,52,55,64-66] Many BDD patients (27% to 45%) pick at their skin in an attempt to improve perceived blemishes or imperfections; however, this behavior sometimes causes observable appearance defects and can even cause severe damage such as skin infections and rupture of blood vessels.[67-69] Many other examples of compulsive behaviors exist, which are often idiosyncratic, such as drinking more than 3 gallons of water a day to make one's face look fuller.[1]

Avoidance is a common behavior in BDD.[70,71] Patients often avoid social situations since they fear being negatively judged by other people because they look "ugly." They may not take a job where they think they will be scrutinized by others. Avoidance may serve a similar purpose as the compulsive behaviors in the short term—that is, to temporarily relieve BDD-related anxiety and distress. However, clinical experience indicates that compulsions and avoidance seldom improve anxiety or reduce the intensity of BDD-related thoughts; rather these behaviors may contribute to the chronicity and severity of BDD.[1,72]

Course of illness

BDD usually begins during adolescence, with two studies reporting a mean age at onset of 16 and a mode of 13.[55,73] Retrospective data indicate that BDD appears to usually have a chronic course, unless it is treated.[52,55] In what is to our knowledge the only prospective study of BDD's course, it was found that the probability of full remission from BDD over 1 year of follow-up was only .09, which is lower than has been reported for mood disorders, most anxiety disorders, and personality disorders in other longitudinal studies.[74] More severe BDD symptoms at intake, longer duration of BDD, and the presence of one or more comorbid personality disorders at intake predicted a lower likelihood of remission from BDD.[75]

Psychosocial functioning and quality of life

BDD is associated with substantial impairment in psychosocial functioning and markedly poor quality of life. In a sample of 200 individuals with BDD (n=200), 36% did not work for at least one week in the past month because of psychopathology, and 11% had permanently dropped out of school because of BDD symptoms.[54] Individuals with BDD have, on average, much poorer mental health, emotional well-being, social functioning, and overall quality of life than the general population, and scores on quality of life measures are poorer than for patients with diabetes or clinical depression.[76,77] In the only prospective study of BDD, overall functioning continued to be poor over 1 to 3 years, and poorer functioning was predicted by more severe BDD and greater delusionality of BDD beliefs at intake.[78] Many patients with more severe BDD are unable to work, be in or attend school, or have relationships.[1,54] In two studies, 27% to 31% of individuals with BDD had been completely housebound for at least 1 week due to BDD symptoms, and more than 40% had been psychiatrically hospitalized.[52,55]

Risk behaviors: suicidality, substance abuse, and violence

Rates of suicidal ideation, suicide attempts, and completed suicide appear markedly elevated.[79] Approximately 80% of individuals with BDD report past or current suicidal ideation, and about one quarter have attempted suicide, which is often attributed to BDD symptoms.[42,50,52,79-81] In the only prospective study of the course of BDD, completed suicide was reported in 0.3% of cases per year.[82] This finding should be considered preliminary, because the sample size was relatively small and the follow-up period was relatively brief; nonetheless, this suicide rate is markedly elevated. While caution should be used in comparing this rate to that of other disorders, the standardized mortality ratio in this study is higher than that reported for nearly any other mental disorder.[83]

Approximately one third of people with BDD report violent behavior that they attribute primarily to BDD symptoms (eg, attacking someone or damaging property).[1,84] Clinical impressions suggest that anger or violence may be fueled by anger about looking "deformed," inability to fix the "defect," delusions of reference (eg, believing that other people are mocking the "defect"), and feeling rejected by others because of the "defect." In addition, anger or even violent behavior may be caused by dissatisfaction with cosmetic procedures. According to one survey, 12% of plastic surgeons said that they had been threatened physically by a dissatisfied BDD patient.[85] There are occasional reports of individuals with probable BDD who attacked and even

killed their plastic surgeon after being distraught by the outcome of a cosmetic procedure.[2]

Many individuals with BDD abuse alcohol or drugs. In one study,[86] 48.9% of BDD participants were diagnosed with a lifetime substance-use disorder, with 42.6% reporting an alcohol-use disorder and 30.1% reporting a cannabis-use disorder. Onset of BDD preceded onset of a substance-use disorder by at least 1 year in 60% of the participants, followed onset of the substance-use disorder in 19% of the participants, and began in the same year in 21%. When asked about the relationship between substance use and BDD symptoms, 68% said that BDD symptoms contributed to the substance use becoming problematic.[86]

Comorbidity

BDD is often comorbid with other mental disorders. In the two largest phenomenology studies of individuals ascertained for BDD (n=293 and n=200), which assessed all participants with the Structured Clinical Interview for *DSM*,[14] major depressive disorder was the most common comorbid disorder, with a lifetime prevalence of about 75% in both samples.[55,73] The other most common lifetime comorbid disorders were substance-use disorders (30% to 48.9%), OCD (32% to 33%), and social phobia (37% to 39%).[55,73,86]

BDD in children and adolescents

Even though BDD usually begins before age 18, very few studies have systematically examined a broad range of BDD's clinical features in youth.[87,88] Like adults, youth report prominent, distressing, and time-consuming appearance preoccupations as well as prominent appearance-related compulsive behaviors. Nearly all youth experience impairment in psychosocial functioning that is attributed primarily to BDD symptoms. In a study of 33 children and adolescents,[87] 18% had dropped out of elementary school or high school primarily because of BDD symptoms, and in a study of 36 youths, 22% had dropped out of school primarily because of BDD.[88] Such difficulties may be particularly problematic during adolescence, because they may substantially interfere with important adolescent developmental transitions.[1,87,89]

Preliminary findings suggest that BDD appears largely similar in youths and adults; however, in a study that directly compared adolescents with adults, the adolescents had more delusional beliefs about their appearance, and they were significantly more likely to currently have a substance-use disorder (30.6% vs 12.8%) and a history of suicide attempts (44.4% vs 23.8%).[88] In an adolescent inpatient study, adolescents with BDD (n=14) scored significantly higher than those without clinically significant body image concerns (n=140) on the Suicide Probability Scale, which reflects suicide risk.[10,90]

Neural substrates and cognitive processing

Findings from neuropsychological research suggest that those with BDD overfocus on details of visual stimuli rather than global aspects.[91] Similarly, an fMRI study of facial processing found a bias among BDD subjects for using strategies to encode details of stimuli rather than use of holistic visual processing strategies.[92] These findings are consistent with clinical observations that individuals with BDD overly focus on minor details of their appearance, which is theorized to fuel preoccupation with minor or nonexistent appearance flaws.[1,72,92,93] Recent research suggests that other information processing abnormalities are present in BDD, eg, threatening interpretations for nonthreatening scenarios and overestimation of the attractiveness of others' faces.[94] In studies that used photographs showing emotional expressions,[94,95] BDD subjects relative to healthy controls tended to misinterpret neutral emotional expressions as contemptuous and angry in scenarios that were self-referent (ie, when someone was said to be looking at the BDD subject).[94] This finding is consistent with how individuals with BDD often report ideas or delusions of reference (thoughts that they are being judged negatively or rejected because of their appearance). Future research is necessary to examine this important area further and assess implications for treatment.

Additional neuroimaging studies have been done, with some similar results and some dissimilar results across studies; findings should be considered preliminary because sample sizes were small and few studies have been published. A small MRI study found that BDD subjects, compared with healthy control participants, exhibited significantly abnormal asymmetry of the caudate nucleus, with a leftward shift in laterality quotient, as well as greater total white matter volume.[96] A second small study similarly found greater white matter volume in BDD relative to controls, in addition to smaller orbitofrontal cortex and anterior cingulate and larger

thalamic volumes.[97] However, a third study found no significant volumetric differences in BDD vs healthy controls.[98] A small BDD single proton-emission computed tomography study showed relative perfusion deficits in bilateral anterior temporal and occipital regions and asymmetric perfusion in the parietal lobes.[99] In another study, when viewing a photograph of their own face vs a familiar face, BDD subjects had relative hyperactivity in left orbitofrontal cortex and bilateral head of the caudate compared with controls; frontostriatal activation correlated with aversiveness ratings of faces and BDD severity.[100] These results are similar to those in OCD symptom provocation studies,[101] suggesting that BDD and OCD symptoms may possibly be mediated by the same orbitofrontal-subcortical circuit (although this study did not directly compare BDD and OCD).

Cosmetic treatment for BDD

A majority of individuals with BDD seek (71% to 76%) and receive (64% to 66%) cosmetic treatment (eg, surgical, dermatologic, or dental) for their perceived appearance flaws.[102,103] In a general population sample from Germany, 7.2% of those with BDD had received cosmetic surgery, compared with only 2.8% of those without BDD.[30] However, such treatment appears to only rarely improve overall BDD symptoms. In a study of 200 individuals with BDD, subjects retrospectively reported that only 3.6% of all treatments resulted in overall improvement in BDD.[102] In another study (n=250), only 7% of treatments (retrospectively assessed) led to overall improvement in BDD.[103] Veale et al found that 81% of 50 BDD patients were dissatisfied with past medical consultation or surgery.[81] Such an outcome can have serious negative consequences for both patients and physicians. In the previously noted survey of cosmetic surgeons, 40% of respondents indicated that dissatisfied BDD patients had threatened them physically or legally.[85] It is therefore important for BDD patients and their mental health providers to be aware that non-mental health interventions appear unlikely to successfully treat BDD symptoms.

Pharmacotherapy

Pharmacologic treatment for BDD is described in more detail elsewhere,[1,26] including in a Cochrane review and a guideline from the United Kingdom's National Institute of Clinical Excellence (NICE) on the treatment of OCD and BDD, which recommend SRIs for the treatment of BDD.[104,105] No medication is approved by the FDA for the treatment of BDD; studies that are required for FDA approval have not been conducted in BDD. Currently, SRIs are recommended as the first-line medication for BDD, including delusional BDD.[1,26,104,105] Two controlled studies, four open-label trials, and clinical series have reported on SRI efficacy for BDD. All studies found that these medications are often efficacious for BDD.[106-110] In a randomized double-blind parallel-group study, fluoxetine was more efficacious than placebo (d=.70).[111] In a randomized, double-blind crossover trial, the SRI clomipramine was more efficacious than the non-SRI antidepressant desipramine.[106] Four open-label trials (of fluvoxamine, citalopram, and escitalopram), retrospective studies of a broad range of SRIs, and case series similarly suggest that SRIs are often efficacious for BDD and associated symptoms.[7,107-109,112-115]

SRI antidepressants appear more efficacious for BDD than non-SRI antidepressants or other types of psychotropic medication, although data are limited.[26] Relatively high SRI doses appear to often be needed, and current recommendations are that the SRI should be taken for at least 12 weeks before determining whether it is efficacious.[1,26] At that time, if it is not helpful, the SRI should be augmented with another medication, or the SRI should be switched to a different SRI.[1,115] Successful SRI treatment results in less frequent and intense appearance preoccupations, decreased BDD-related distress, less intense urges and less time spent performing compulsive/safety behaviors, and better control over BDD preoccupations and compulsions.[26] Most studies have found that associated symptoms, such as depressive symptoms, functioning, and quality of life, often improve as well.[26,116] In addition, most studies have found that insight regarding the perceived appearance flaws improves with SRI treatment.[26]

Little data are available on the efficacy of antipsychotic medications for BDD, even though many patients have delusional BDD beliefs. Several case reports indicate successful SRI augmentation with an antipsychotic.[117,118] However, a study that examined the efficacy of augmenting fluoxetine with pimozide versus placebo found that pimozide augmentation was not more efficacious than placebo augmentation.[119] The sample size was small (n=28), raising the possibility of Type II error. However,

the effect size was small (d=0.23), and only 18.2% of subjects responded to pimozide (versus 17.6% to placebo), suggesting minimal efficacy for pimozide augmentation. In a small case series of olanzapine augmentation of fluoxetine, BDD symptoms were minimally improved in 2 of 6 patients, and no patient experienced more substantial improvement, suggesting that atypical neuroleptics may not be efficacious for BDD.[120] Other augmentation strategies have been preliminarily examined, with data suggesting that buspirone, and occasionally other medications, may be helpful when added to an SRI.[1,26,114,115]

Two open-label studies (n=17 for both studies) suggest that the serotonin-norepinephrine reuptake inhibitor venlafaxine or the antiepileptic medication levetiracetam may be efficacious for some patients with BDD.[121,122] While these findings are promising, the small sample sizes, lack of a control group, and lack of replication indicate that these medications should not be considered first-line treatments for BDD at this time.

Cognitive-behavioral therapy

Available research suggests that cognitive-behavioral therapy (CBT) may be efficacious for BDD.[123-125] Most studies have examined a combination of cognitive components (eg, cognitive restructuring that focuses on changing appearance-related assumptions and beliefs) with behavioral components, consisting mainly of exposure and response prevention (ERP) to reduce avoidance and compulsive and safety behaviors. Findings from neuropsychological research (as reviewed above) support the use of cognitive-behavioral strategies to help patients focus less on minor details of their appearance and to instead view their body more "holistically."[126]

Early case reports indicated that exposure therapy may be effective.[127,128] In a subsequent series, in which BDD patients (n=17) received 20 sessions of daily individual 90-minute CBT, BDD symptom severity significantly decreased.[129] In an open trial of group CBT (n=13), administered in twelve 90-minute sessions, BDD and depressive symptoms significantly improved (from severe to moderate).[124] In a study of ten participants who received thirty 90-minute individual ERP sessions without a cognitive component, and 6 months of relapse prevention, improvement was maintained at up to 2 years.[130]

Two waitlist controlled studies have been published. Veale, Gournay, and colleagues randomized 19 patients to 12 weekly sessions of individual CBT or a 12-week no-treatment waitlist control.[123] Two measures of BDD symptoms showed significant improvement with CBT compared to the waitlist condition. In a randomized controlled trial of group CBT for BDD, 54 women were assigned to a CBT treatment group (provided in 8 weekly 2-hour sessions) or to a no-treatment waitlist control.[131] Subjects who received CBT had significantly greater improvement in BDD symptoms, self-esteem, and depression than those on a waiting list with large effect sizes. Although preliminary, these findings suggest that CBT is very promising for BDD.

One challenge when treating patients with CBT is that many are insufficiently motivated for treatment, because of poor insight (ie, not accepting that they have a treatable psychiatric illness or believing that they need cosmetic treatment rather than mental health treatment). Clinical impressions suggest that use of motivational interviewing techniques may be helpful.[125,132] In addition, certain BDD symptoms may require specialized techniques, such as the use of habit reversal training for compulsive skin-picking or hair-plucking.[126]

At this time it is not known whether medication or CBT are more efficacious for BDD, as no randomized controlled studies have directly compared them. Furthermore, it is not known whether a combination of medication and CBT is more efficacious than either treatment alone. However, based on clinical experience, the authors recommend that all patients with severe BDD, severe depressive symptoms, or active suicidal ideation receive an SRI and ideally both treatments.[1] Future studies are needed to assess these important questions.

Alternative psychosocial treatments

Despite the severe morbidity associated with BDD, there are few effective treatments and a pressing need for more treatment options and more treatment research. Currently, CBT is the only psychosocial treatment with preliminary empirical support. Some patients, however, refuse CBT or terminate prematurely from therapy.[133] Therefore, alternative treatments are needed. Interpersonal psychotherapy (IPT) may offer a promising alternative. Individuals with BDD often have a history of emotional abuse,[134] long-standing interpersonal conflicts,[135] and may suffer from crippling social anxiety and interpersonal problems.[70,71] IPT enables patients to

develop more effective strategies to reduce interpersonal distress, poor self-esteem, and depressed mood,[136,137] which are hypothesized to maintain body image concerns. Results from a small open trial pilot (n=9) regarding the preliminary efficacy of IPT for BDD are promising,[138] and a randomized controlled trial is currently under way.

Conclusions

Despite BDD's prevalence and severity, this disorder remains underdiagnosed in clinical settings. Given the markedly poor functioning and quality of life, and high rates of suicidality, among these patients, it is important that BDD is recognized and accurately diagnosed.[12,125] Interventional research on BDD is still limited; however, available treatment data are promising and indicate that most patients improve with appropriate treatment that targets BDD symptoms specifically. Limited data exist regarding BDD in children and adolescents or the expression of BDD in other cultures. There is emerging evidence that information processing deficits play an important role in BDD, but very little is known about this important topic. It is hoped that further research on BDD will elucidate the many aspects of this disorder that remain poorly understood, lead to more effective treatments and more treatment options, and ultimately enable prevention of this severe mental disorder. ❑

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Trastorno dismórfico corporal

El trastorno dismórfico corporal (TDC) es una patología relativamente común que se caracteriza por una preocupación agobiante o limitante relacionada con defectos leves o imaginarios de la apariencia. Habitualmente se considera el TDC como un trastorno del espectro obsesivo-compulsivo, dadas las similitudes que tiene con el trastorno obsesivo-compulsivo. Es importante reconocer y tratar apropiadamente el TDC, ya que este trastorno se asocia con un marcado deterioro del funcionamiento psicosocial, una muy pobre calidad de vida y alta frecuencia de suicidalidad. En esta revisión se entrega una panorámica de los hallazgos de la investigación en el TDC, incluyendo su epidemiología, las características clínicas, el curso de la enfermedad, la comorbilidad, el funcionamiento psicosocial y la suicidalidad. También se revisa brevemente la investigación reciente sobre los sustratos neurales y el procesamiento cognitivo. Finalmente se discuten las aproximaciones terapéuticas que parecen eficaces para el TDC, con un foco en los inhibidores de la recaptura de serotonina y la terapia cognitivo-conductual.

Trouble dysmorphophobique

Le trouble dysmorphophobique est un trouble relativement courant consistant en une préoccupation pénible ou obsédante concernant une imperfection légère ou imaginaire de l'apparence. La dysmorphophobie est considérée couramment comme un trouble du spectre obsessionnel-compulsif (TOC), fondé sur ses ressemblances avec le TOC. Il est important de le reconnaître et de le traiter correctement, ce trouble étant associé à une altération importante du fonctionnement psychosocial, en particulier une mauvaise qualité de vie et un taux élevé de suicides. Cet article présente les travaux sur le trouble dysmorphophobique, incluant son épidémiologie, son tableau clinique, l'évolution de la maladie, la comorbidité, le fonctionnement psychosocial et le taux de suicide. Nous présentons également rapidement les résultats de recherche récente sur les substrats neuraux et les processus cognitifs. Nous abordons finalement les traitements qui semblent efficaces pour cette pathologie, en mettant l'accent sur les inhibiteurs de la recapture de la sérotonine et le traitement cognitivo-comportemental.

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