Body Dysmorphic Disorder

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KEYWORDS

• Body dysmorphic disorder • Obsessive-compulsive spectrum • Treatment
• Cognitive-behavioral therapy • Serotonin reuptake inhibitor

KEY POINTS

- Body dysmorphic disorder (BDD) has garnered much research attention in the past decade. Pharmacologic and nonpharmacologic treatment options are available but limited.
- The first-line pharmacotherapies for BDD are serotonin reuptake inhibitors (SRIs) which seem to require relatively high doses and long trial durations.
- The most empirically supported nonpharmacologic intervention for BDD is cognitive-behavioral therapy (CBT), which is a time-limited, symptom-focused treatment that involves psychoeducation, cognitive restructuring, perceptual/mirror retraining, exposure and response prevention, and relapse prevention.
- Available data from medication and CBT trials are limiting as far as generalizability and lack of well-controlled designs. It remains unclear which modality is more efficacious and whether combination therapies offer additional advantages over monotherapies.
- Highly delusional patients may be more likely to seek treatment from nonpsychiatric professionals, such as cosmetic surgeons, dermatologists, and dentists, for their BDD concerns.

OVERVIEW: NATURE OF THE PROBLEM

Characterized as a disorder of imagined ugliness, BDD has long been described in the psychiatric literature. BDD was introduced only in 1980 to the *Diagnostic and Statistical Manual of Mental Disorders (DSM)-III*[1] as an atypical somatoform disorder, called *dysmorphophobia*, and was given a separate diagnosis in *DSM* (Third Edition Revised)[2] in the somatoform disorders section. By the time the *DSM* (Fourth Edition,

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Abbreviations	
AN	Anorexia nervosa
BDD	Body dysmorphic disorder
CBT	Cognitive-behavioral therapy
DSM	*Diagnostic and Statistical Manual of Mental Disorders*
OCD	Obsessive-compulsive disorder
SAD	Social anxiety disorder
SRI	Serotonin reuptake inhibitor

Text Revision) was published,[3] the classification of BDD evolved to include a criterion that the disorder was not better accounted for by another mental disorder (such as anorexia nervosa [AN]); however, it was still classified as a somatoform disorder. Given the recent research attention on the strong relationship between BDD and obsessive-compulsive disorder (OCD),[4,5] the *DSM* (Fifth Edition) now includes BDD under a new section for OCD and related disorders.[6] Thus, the predominant view today is that BDD is an obsessive-compulsive spectrum disorder due to strong evidence of the overlap between BDD and OCD in terms of phenomenology, comorbidity, and treatment response.

Despite such revisions in the *DSM*, BDD has consistently been defined by an excessive preoccupation with imagined defects in physical appearance. BDD differs from normal appearance concerns because it is associated with significant distress and can lead to meaningful functional impairment in interpersonal relationships and occupational status. When real physical defects are present, BDD is marked by exaggerated concerns about the severity of the defect, as manifested by a strong frequency, duration, and intensity of preoccupation about the defect. Individuals with BDD exhibit ritualistic patterns of thoughts and behaviors associated with hiding, correcting, or fixing the perceived defect, such as intrusive thoughts about appearance, mirror checking, and camouflaging.[7–9] They may also engage in significant avoidance of people, places, or situations where they think that their appearance may be evaluated. An individual's preoccupation may become difficult for a person to control and could consume several hours of the day. Case studies have shown that individuals may become so preoccupied and distressed by their perceived defect or flaw that they may stop working or socializing and, in severe cases, may become housebound.[7]

In BDD, a person's focus of concern may center around 1 or many body parts, with the most common areas involving the skin, hair, and nose.[8,10] Preoccupation with several different aspects of appearance is not uncommon.[8,10] Individuals with BDD often experience low self-esteem as well as feelings of disgust or embarrassment. Due to the shame and secretive nature of the illness, BDD is often under-recognized or left untreated and represents an understudied research area in the literature.[7,9]

This review aims to provide an updated overview of BDD in terms of its psychopathology, etiology, epidemiology, and nosology, with an emphasis on current pharmacologic and nonpharmacologic treatment options for BDD. The authors also aim to integrate recent empirical data that inform these areas as well as identify areas of further research and provide suggestions for future directions.

ASSOCIATED CLINICAL FEATURES

Delusionality

Perhaps one of the most debilitating clinical characteristics of BDD is delusionality. Many individuals with BDD are completely convinced that their perceived defects are real, to the extent that others take special notice of their flaws.[11] In a study

conducted by Phillips,[12] 129 patients with BDD were interviewed using the Brown Assessment of Beliefs Scale,[13] which is an instrument designed to assess delusionality. Of the 129 patients assessed, 108 (84%) were either delusional or had poor insight in their disorder. Furthermore, 60 participants (46.5%) were completely convinced that their appearance beliefs were true. Another study examining characteristics of 100 participants with BDD found that 52 had delusional BDD and 48 had a nondelusional form of BDD.[14] Few differences were found between groups demographically or clinically, and neither group responded to treatment with antipsychotic medication alone. These results indicate that patients with delusional versus nondelusional BDD are not different but rather patients with delusional BDD may be suffering from a more severe form of the disorder.[14] Moreover, increased rates of delusionality may be unique to BDD compared with other related disorders. For example, although BDD and OCD are thought to be similar disorders, research has shown that rates of delusionality and a lack of insight are higher in BDD than OCD.[15] These findings shed light on implications for further research as well as treatment strategies for BDD.

Suicidality

Empirical research suggests that the rate of suicidal ideation and completed suicide is particularly high in BDD.[16,17] Studies have shown that the rates of suicidal ideation over a lifetime in patients with BDD is as high as 80%, with up to 25% of patients actually attempting suicide.[16] One particular study[18] found that of 185 subjects with BDD, the mean suicidal ideation rate was 10 to 25 times higher and the mean annual suicide attempt rate was 2 to 12 times higher than the average US population. Furthermore, in this study, the completed suicide rate was approximately 45 times higher than the general population. Clinical correlates of suicidal ideation and attempts include a more severe lifetime course of BDD as well as comorbid disorders, such as major depressive disorder, bipolar disorder, and borderline personality disorder.[18] Risk factors include psychiatric hospitalizations, unemployment, poor social support, poor self-esteem, and a history of abuse.[16]

ETIOLOGY

BDD has a complex etiology, because multiple biological, psychological, and socioenvironmental factors have been proposed as having a role in the development and maintenance of BDD.[19] For example, certain biological factors may be involved in the pathophysiology of BDD, such as volumetric brain abnormalities in the orbitofrontal cortex and anterior cingulate cortex[20] as well as asymmetry of the caudate nucleus and greater white matter volume compared with healthy control participants.[21] In addition, one study found that BDD symptom severity correlated significantly with the size of the left inferior frontal gyrus and the right amygdala, although volumetric differences in these brain regions were not found between BDD patients and healthy control participants.[22] Similarly, individuals with BDD showed hyperactivity of the left orbitofrontal cortex and bilateral head of the caudate nucleus during visual processing of their own face compared with a familiar face.[23] Although these studies vary widely in terms of sample characteristics and task demands, researchers have interpreted these findings as demonstrating pathophysiologic mechanisms similar to OCD. Furthermore, findings from family studies indicate that the prevalence of BDD is significantly higher among first-degree relatives of probands with OCD compared with other obsessive-compulsive spectrum disorders, such as hypochondriasis, eating disorders, and impulse control disorders,[24] which supports the conceptualization of BDD as an obsessive-compulsive spectrum disorder.

Extensive research has also examined the role of certain cognitive and socioenvironmental factors in the etiology of BDD.[25,26] Social learning models[26] postulate that early learning experiences in childhood reinforce maladaptive beliefs about appearance. Through classical or evaluative conditioning, individuals may begin to develop aversive reactions to appearance, leading to the development of core beliefs surrounding the value of attractiveness.

Cognitive-behavioral models are widely accepted psychological theories of BDD and have been proposed to explain some of the mechanisms involved in the development and maintenance of BDD. These models highlight the diathesis-stress model and integrate biological predispositions, cultural factors, early childhood experiences, and psychological vulnerabilities as factors that influence the etiology and maintenance of BDD.[27,28] For example, cognitive-behavioral models of BDD[27,28] emphasize the cognitive aspects underlying BDD, such as maladaptive beliefs about the importance of appearance. Veale[27] hypothesized that external events, such as looking at oneself in the mirror (which he called the view of oneself as an aesthetic object), combined with intrusive thoughts might trigger a process of excessive self-focused attention. This self-focused attention then leads to a negative appraisal of body image in which an individual may develop core beliefs linking failure or worthlessness to appearance, for example, "If I am defective, then I will be alone all my life." As a result, individuals often ruminate on their perceived ugliness and compare themselves to an impossibly ideal appearance. Because individuals with BDD are so self-focused on aversive imagery, they are unable to accurately observe the actions of others to discredit their own fears of negative evaluation. Reactions to their perceived image and maladaptive thoughts may invoke disgust and lead an individual to engage in ritualistic safety behaviors, such as camouflaging to alter appearance, avoiding social situations, skin-picking, reassurance seeking, or escaping uncomfortable situations. Although engagement in these ritualistic behaviors is meant to relieve anxiety, the behavior itself tends to decrease distress only briefly and instead increases self-consciousness and preoccupation over time.[27–29]

Empirical findings on cognitive biases in BDD are consistent with cognitive-behavioral models. Studies have demonstrated that patients with BDD show a selective attentional bias for emotional words (positive or negative in valence) compared with neutral words in an emotional Stroop paradigm.[30] Individuals with BDD are also more likely to make negative interpretations of ambiguous body-related and social scenarios than their OCD and healthy counterparts.[31] These attentional and interpretation tendencies support the notion that BDD may in part be maintained by cognitive factors.

EPIDEMIOLOGY

Prevalence

Population-based estimates of the point prevalence of BDD using nationwide, representative samples have ranged from 1.7% to 2.4%.[32–34] These studies have methodological differences and vary widely in terms of BDD symptom assessment, because some studies used self-report methods, and others used in-person structured clinical interviews. In college student populations, prevalence rates seem higher, at 5.3%.[35] A cross-cultural comparison study of body image concerns and probable BDD diagnosis among American and German college students found that body image preoccupation was higher among American students, but BDD diagnosis did not differ between groups.[36]

Prevalence estimates are generally higher in clinical samples. Among outpatients, the prevalence of BDD ranges between 1.8% and 6.7%,[37,38] and among inpatients,

the prevalence ranges from 13.1% to 16.0%.[39,40] Evidence also indicates a prevalence rate of 7.7% and 24.5% among samples of patients who sought nonpsychiatric treatment options, such as cosmetic surgery and dermatologic treatments.[41–43]

Gender Differences

A recent epidemiologic study of the prevalence of BDD in the United States showed a slight preponderance of BDD in women (2.5%) compared with men (2.2%).[33] Other evidence indicates that men with BDD are more likely single and living alone compared with women with BDD.[44] Furthermore, there seem to be gender differences in body parts of concern because men are more likely to obsess about their genitals, body build, and hair thinning/balding whereas women are more likely to obsess about their skin, stomach, weight, breasts, buttocks, thighs, legs, hips, toes, and excessive body hair.[44] Thus, gender may be an important moderator of BDD symptoms and clinical presentation.

Course and Outcome

Retrospective data suggest that the typical age of onset of BDD is approximately 16.0 $\pm$ 6.9 years, with a mode of 13 years.[45] BDD tends to be a severe and chronic disorder, because recent data from a 4-year prospective naturalistic study indicate a low probability (20%) of full remission after 4 years, and a high probability (42%) of full relapse during 4 years after remission.[46] Furthermore, in this study, more severe BDD symptoms at intake predicted lower remission probability. Such evidence underscores the often unremitting course of BDD and the importance of conducting further research to enhance the detection and treatment of BDD.

NOSOLOGIC ISSUES

Much available data support the ostensible link between OCD and BDD, and the conceptualization of BDD as an obsessive-compulsive spectrum disorder (for review, see Refs.[4,47]). For example, individuals with OCD and BDD share similarities in cognitive biases, such as high levels of perfectionism and preference for symmetry, as well as similarities in repetitive checking behaviors and avoidance of triggering situations.[4] Other studies demonstrate comorbidity rates as high as 30% between OCD and BDD samples, and preferential response to SRIs in both disorders.[5,48] There are important differences between the 2 disorders.[48–50] Individuals with BDD tend to be less likely to be married, are more likely to be unemployed, demonstrate a higher rate of suicidal ideation, exhibit poorer insight, and have a higher comorbidity with major depression and substance use disorders compared with individuals with OCD.[50,51]

Recent research attention has also examined the relationship between BDD and other related disorders, such as social anxiety disorder (SAD), because a core feature of both disorders is a pathologic concern of being negatively evaluated by others.[52–55] Empirical evidence suggests that BDD and SAD may have a similar gender distribution and history of suicide attempts, but SAD may be associated with an earlier age of onset, and BDD may be associated with greater psychiatric hospitalizations as well as a lesser likelihood of being married.[54] In addition, data indicate that individuals with BDD (but not SAD) are more likely to have OCD, an eating disorder, or a psychotic disorder compared with individuals with SAD (but not BDD),[54] which suggests that BDD and SAD may be less closely related than previously thought. Consistent with this view, a study examining the effect of an attention retraining cognitive intervention for SAD on BDD concerns in a sample of patients with primary SAD found that attention retraining significantly improved BDD but not SAD symptoms.[56] This finding

supports the possibility that BDD and SAD may be maintained by separate and distinguishable cognitive mechanisms, such as selective attentional or visual processing of specific emotional stimuli. Future research on the relationship between BDD and SAD should test this hypothesis to clarify their nosology.

BDD also shares diagnostic and conceptual overlap with eating disorders, because a primary concern in both disorders involves a preoccupation with physical appearance and body dissatisfaction.[57] One study comparing individuals with AN and individuals with BDD found that those with AN reported more weight- and shape-related body image concerns, whereas those with BDD showed more diverse appearance concerns.[58] Moreover, a recent study showed that 12% of inpatients with eating disorders had comorbid BDD and displayed a high prevalence of dissatisfaction with non–weight-related body image concerns, which is consistent with the view that these 2 disorders are highly overlapping.[59]

Furthermore, most people with BDD have poor insight or delusional BDD beliefs, not recognizing that the appearance flaws they perceive are actually minimal or nonexistent. Individuals with BDD are often strongly convinced that they are physically flawed.[11] They often have delusions of reference that people are laughing at or taking special notice of their perceived appearance defect.[60] Few untreated patients have good insight. An insight specifier has been included in the *DSM* (Fifth Edition) to emphasize that individuals with BDD might present with a range of insight (eg, allowing individuals to be classified as having "absent insight/delusional beliefs").[6] BDD differs, however, from psychotic disorders in that BDD is more commonly associated with fluctuating insight,[60] whereas insight impairment in psychotic disorders is typically more stable. In addition, BDD is typically not associated with other psychotic symptoms, such as auditory hallucinations, or perceptual and motor disturbances, and, in contrast to individuals with a psychotic disorder, those with BDD tend to display only delusions that center around their appearance concerns. Data show that fewer than 3% of patients with either delusional or nondelusional variants of BDD also meet criteria for a psychotic disorder, which suggests a low rate of comorbidity.[61] Furthermore, researchers have observed that the degree of certainty about the perceived appearance defects may change over time and depend on situational context.[62] Thus, the conceptualization of BDD as a psychotic disorder does not seem a sufficient explanation of the range of insight that has been observed in BDD.

TREATMENT APPROACHES

Studies have shown that some types of pharmacologic and nonpharmacologic interventions can be successful in the treatment of BDD.[63–65] Existing information on the relative efficacy of these approaches is, however, lacking. In addition, the treatment outcome studies on BDD are limiting as far as their generalizability, because they typically do not include suicidal individuals, as well as their methodological rigor, because few randomized controlled trials have been conducted. Although treatment outcome research has been promising, the efficacy of combination treatments as well as moderators of treatment response requires further investigation.

Pharmacologic Treatment Options

Medication trials for BDD have focused primarily on SRIs through open-label and randomized controlled trials. These trials include treatment with fluoxetine,[66] fluvoxamine,[67,68] citalopram,[69] escitalopram,[70] and clomipramine versus desipramine.[71] In all of these studies, BDD symptoms improved and response rates ranged from 53% to 73%. A controlled double-blind crossover trial[71] that compared the SRI

clomipramine to the non-SRI antidepressant desipramine found that clomipramine was more efficacious for BDD, which suggests that antidepressants are not universally effective for BDD and underscores the importance of testing strategies to specifically treat BDD symptoms.[64] This finding is consistent with previous studies showing that SRI trials led to improvements in BDD symptoms compared with non-SRI tricyclic antidepressants.[72,73] Thus, given that the use of non-SRI medications as a monotherapy for BDD has not been well studied, the first-line pharmacotherapy for BDD is SRI medication.

Although randomized controlled trials of SRIs for BDD are limited, available evidence indicates that BDD may require higher SRI doses and longer trial durations.[64] For example, previous studies have shown a mean time to SRI response of 6 to 9 weeks.[66,68] In addition, the mean fluoxetine dose in one study[66] was high (77.7 $\pm$ 8.0 mg/d). Studies show that citalopram[69] and escitalopram[70] have faster response times, with significant improvement within 4.6 and 4.7 weeks, respectively. Studies have yet to directly compare dosing structures and trial durations across different SRIs, however. Based on clinical expertise, experts recommend using higher doses of SRIs with patients who tolerate the medication well and have only partially responded to the highest recommended dose.[64] In addition, tailoring SRI titration and dosing to each patient is recommended, based on factors, such as severity of illness and patient preference.[64] Further research is needed to determine the optimal dose and timing of SRIs for BDD. Moreover, studies examining augmentation of SRIs for BDD with other pharmacologic agents are even fewer, with existing data available from case studies, small open-label trials, and chart review studies, which suggest that the use of certain SRI augmentation strategies may be beneficial, such as buspirone or clomipramine.[74] The lack of data on SRI augmentation is problematic, given the substantial percentage of patients who do not respond or only partially respond to SRIs. Thus, future research should systematically examine optimal use of SRIs as well as SRI augmentation in larger, controlled trials.

A point of contention exists in the exploration of treatment of delusional BDD. Although delusional symptoms arising in other disorders have typically been treated by antipsychotic medications, several studies have shown that delusional patients with BDD are just as likely as nondelusional patients with BDD to respond to SSRIs.[64,66,71] For example, treatment with fluoxetine was shown just as efficacious for individuals with delusional BDD as it was for those with nondelusional BDD.[66] Furthermore, Hollander and colleagues[71] found that clomipramine was more effective than desipramine regardless of whether or not the patient was delusional. Additionally, retrospective studies have shown that antipsychotics alone were rarely effective for delusional BDD.[12] As such, experts recommend that delusional BDD be treated with an SRI rather than an antipsychotic alone.[64]

Nonpharmacologic Treatment Options

CBT, the most studied and empirically supported form of psychological treatment, has been found effective for BDD.[65] A typical course of CBT for BDD involves several core treatment components, such as psychoeducation, motivational enhancement, cognitive restructuring, in vivo exposures and response prevention, perceptual mirror retraining, and relapse prevention.[28,75,76] During psychoeducation, a therapist explains the CBT model to a patient and develops an individualized model for the patient, which includes factors that may have contributed to the development and maintenance of the disorder. The therapist and patient then work together to evaluate the accuracy of maladaptive thoughts and work toward developing more adaptive beliefs, which is a technique used in cognitive therapy. Furthermore, treatment also includes

techniques used in behavior therapy, such as exposure and response prevention. During exposure and response prevention, patients are asked to confront situations that typically make them nervous without engaging in ritualistic responses, such as mirror checking or avoidance, and to allow the anxiety to subside on its own. Similarly, during perceptual and mirror retraining, patients are trained to describe their appearance in an objective, nonjudgmental manner while standing at least an arm's length away from the mirror. Consistent with the goals of cognitive therapy, this technique promotes more objective ways of describing appearance and disrupts the typical manner in which patients relate to the mirror. In the last few sessions of CBT, the therapist and patient work on relapse prevention to help the patient maintain achievements in therapy over the long term.[28,75,76]

Recently, Wilhelm and colleagues[76] pilot tested a new form of modular CBT for BDD, which represented a more flexible, individualized treatment approach that would be ideal for treating the heterogeneous nature of BDD. Twelve adults with primary BDD were delivered treatment in 18 to 22 sessions. Core CBT treatment components were supplemented with modular interventions, including a skin picking and hair plucking module, a muscularity and shape/weight module, and a cosmetic treatment module. Eighty percent of the study completers were responders to the treatment—scores on the BDD modification of the Yale-Brown Obsessive Compulsive Scale,[77] which is a measure of BDD symptom severity, decreased significantly at posttreatment. Furthermore, these effects were still present at the 3-month and 6-month follow-up sessions. Results from this study suggested that a flexible, modular approach to CBT may be efficacious for individuals with BDD by targeting individual psychopathology and symptomatology. Although most CBT treatment approaches include a combination of cognitive and behavioral techniques, research has shown that behavior therapy alone (without explicit cognitive interventions) can be effective.[78] Furthermore, these treatments have shown effective in both individual and group treatment settings.[29,79–82]

Combination Therapies

To date, no studies have directly compared the efficacy of CBT versus pharmacotherapy for BDD nor have studies directly compared the efficacy of monotherapies with CBT or medications versus combination therapies. It remains unknown, therefore, whether combination therapies offer an incremental advantage over monotherapy alone.

A meta-analysis examined waitlist control studies and case studies involving psychological or pharmacologic treatments.[78] Psychological treatment was typically short term, ranging from 7 to 30 sessions. Results showed that psychological treatments (cognitive therapy, behavior therapy, and CBT) were all successful in treating BDD. Furthermore, although pharmacologic treatments were also found effective, researchers found a significantly greater effect size for CBT compared with medication treatments. These results should be interpreted with caution, because many participants included in the psychological intervention trials were on a stabilized regimen of medication, which may confound the true effect size of psychological interventions when used as a monotherapy.

Surgical and Nonpsychiatric Treatments

Due to strong delusional convictions that appearance flaws are a physical rather than psychological problem, individuals with BDD may seek cosmetic or dermatologic treatment rather than psychological or pharmacologic treatment. One study found that among 289 individuals with BDD, nonpsychiatric medical treatment and surgery

were sought by 76.4% and received by 66.0% of adults, with men and women equally likely to seek nonpsychiatric treatment.[83] A recent study showed that among a sample of 200 BDD patients, rhinoplasty and breast augmentation were the most commonly received surgical treatment of BDD concerns, constituting 37.7% and 8.2% of received surgical procedures in the sample, respectively.[84] As for minimally invasive procedures, collagen injections and microdermabrasion were the most commonly received procedures, constituting 50% and 19.2% of received minimally invasive procedures, respectively. Although an individual may be temporarily relieved after these cosmetic procedures, the effects are typically not long lasting. Data indicate that only 2.3% of surgical or minimally invasive procedures led to longer-term improvement in overall BDD symptoms.[84]

Other Treatments

Case reports suggest that ECT is rarely efficacious for BDD symptoms,[85] with transient improvement most notably in depressive symptoms. Neurosurgery is another treatment option that has not been well-studied for BDD, although some researchers point to available case reports, which suggest that certain procedures (such as a modified leucotomy, capsulotomy, bilateral anterior cingulotomy and subcaudate tractotomy, and anterior capsulotomy) have been performed and may lead to substantial improvement in BDD symptoms, especially for patients who are severely ill or treatment refractory.[64]

Treatment Resistance

Although some pharmacologic and nonpharmacologic treatments may be effective for BDD, barriers to treatment continue to pose difficulties. For instance, as discussed previously, delusional beliefs that appearance flaws are real may lead BDD patients to seek nonpsychiatric treatment options for their appearance concerns. Barriers to treatment might also include an individual's reluctance to talk about appearance concerns due to feelings of shame or the lack of awareness of BDD and its clinical characteristics and significance.[86]

Only a few studies have examined barriers to seeking treatment in BDD. Using an Internet survey, Buhlmann[87] examined a sample of 172 individuals with self-reported BDD. In this sample, researchers found that only 23.3% had been diagnosed by a mental health care provider, and fewer than 20% were receiving psychosocial or psychotropic treatment. Among the reasons cited for not seeking treatment, participants listed shame, not being able to find a treatment provider nearby, and the belief that only cosmetic surgery or other dermatologic treatments could help. Another Internet study conducted by Marques and colleagues[88] found similar results. A total of 401 participants with symptoms consistent with a diagnosis of BDD completed questionnaires measuring treatment utilization and treatment barriers. Consistent with past research, individuals sought cosmetic or dermatologic treatment of their concerns. Additionally, individuals experienced barriers to treatment, such as stigma, shame, and treatment skepticism. Researchers also found barriers to treatment related to ethnicity. In particular, Latinos with BDD symptoms endorsed higher rates of treatment barriers than white patients. Further research is necessary to examine how treatment barriers can be minimized in general and for minority groups in particular.

Long-Term Recommendations

Evidence points to the long-term benefit of continuing an effective SRI, because the risk of relapse seems to increase significantly after discontinuation.[74] A chart review

study found that approximately 87% of patients who discontinued an effective SRI relapsed within the next 6 months compared with only 8% of patients who continued an effective SRI.[89] It remains unknown whether receiving CBT while taking an SRI reduces the risk of relapse if the SRI is discontinued, but this should not be assumed and is important to study in future research.[64]

Long-term follow-up data on pharmacotherapy and CBT treatment trials are limited. Preliminary data suggest, however, that treatment gains from CBT are maintained at 3- and 6-month follow-up periods,[76] and in one study, gains were maintained after an intensive behavioral therapy program for up to 2 years.[79] Given the chronicity and severity of BDD, more research is needed to examine predictors of treatment outcome and factors influencing relapse.

SUMMARY

BDD is a severe and chronic psychiatric disorder that has been largely underrecognized and underdiagnosed. Although research on BDD has increased over the past several decades, the disorder is still understudied. Specialized educational training for mental health care professionals as well as providers in medical settings, such as primary care providers, surgeons, dermatologists, and dentists, will be necessary for the proper diagnosis and subsequent treatment of this disorder. Future studies should examine the comparative efficacy of CBT versus pharmacotherapy in placebo-controlled studies as well as ways of enhancing treatment outcome either via combination therapies, SRI augmentation, or augmentation of other novel pharmacologic agents.

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