Body dysmorphic disorder: Choosing treatment and prognosis

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INTRODUCTION

Body dysmorphic disorder (BDD) is characterized by preoccupation with nonexistent or slight defects in physical appearance; despite looking normal, patients believe that they look abnormal, unattractive, ugly, or deformed [1]. The preoccupation with perceived flaws leads to excessive repetitive behaviors (eg, checking their appearance in mirrors), which are usually difficult to control and not pleasurable. BDD is common but usually underrecognized, causes clinically significant distress and/or impaired functioning, and is often associated with suicidal ideation and behavior.

Patients with BDD may present to mental health or to other clinicians, such as dermatologists; plastic surgeons; ear, nose, and throat physicians; primary care physicians; pediatricians; gynecologists; and dentists. Most patients seek nonpsychiatric cosmetic treatment (most commonly dermatologic and surgical) for their perceived physical defects; administering this treatment appears to be ineffective for most patients and can pose risks for clinicians.

By contrast, pharmacotherapy (ie, selective serotonin reuptake inhibitors or clomipramine) and/or cognitive-behavioral therapy tailored specifically to BDD are often efficacious. However, many patients do not reveal their BDD symptoms to their clinicians due to embarrassment, and are not aware that effective treatment is available [2]. When medications are prescribed, patients often do not receive at least minimally adequate doses for a sufficient duration of time [3].

This topic reviews choosing and administering treatment for BDD, as well as its prognosis. The general principles of treatment, epidemiology, pathogenesis, clinical features, assessment, diagnosis, and differential diagnosis of BDD are discussed separately:

- (See "Body dysmorphic disorder: General principles of treatment".)
- (See "Body dysmorphic disorder: Epidemiology and pathogenesis".)
- (See "Body dysmorphic disorder: Clinical features".)
- (See "Body dysmorphic disorder: Assessment, diagnosis, and differential diagnosis".)

GENERAL TREATMENT PRINCIPLES

The general principles and issues that are involved in treating body dysmorphic disorder (BDD) include the following:

- Approach to the patient – Before initiating treatment for BDD:
  - Attend to the therapeutic alliance, express empathy, and instill hope
  - Educate patients about BDD
  - Focus on the patient's excessive preoccupation, suffering, and impaired functioning
  - Avoid focusing on how the patient looks; however, it may be helpful to discuss that others see the patient differently than does the patient
  - Discuss effective psychiatric treatment for BDD
  - Individualize treatment for each patient
  - Involve family members if clinically appropriate
  - Use motivational interviewing, if needed, to engage and retain patients in treatment
- Monitor BDD symptoms over time.
- Discourage cosmetic interventions – BDD symptoms respond poorly to cosmetic procedures in the large majority of cases and may even worsen.
- Referral – Patients with BDD are typically referred to mental health clinicians.

These general principles are discussed in detail separately. (See "Body dysmorphic disorder: General principles of treatment".)

MILD TO MODERATE ILLNESS

Mild to moderate body dysmorphic disorder (BDD) is characterized by the following clinical features:

- No suicidal intent or self-harming behaviors are present. In addition, there is no suicidal ideation, or if suicidal thoughts are present, they do not pose an imminent risk. Suicidal ideation that does not represent an imminent risk includes passive suicidal ideation, such as thoughts that life is not worth living or that one would not mind going to sleep and not waking up.
- Mild to moderate distress and impairment of psychosocial functioning (eg, avoiding certain social situations) that is attributable to BDD symptoms.
- No more than mild to moderate comorbid depressive symptoms.

Mild to moderate BDD can generally be treated in an outpatient setting.

Approach to treatment — We suggest that acute treatment of mild to moderate BDD proceed according to the sequence described in the sections below. Patients begin with initial treatment and progress through each step until they respond. The duration of an adequate treatment trial with pharmacotherapy or cognitive-behavioral therapy (CBT) is discussed elsewhere in this topic. (See 'Administration' below and 'Cognitive-behavioral therapy' below.)

The primary treatments that we suggest for BDD, either as monotherapy or combination therapy, include:

- Selective serotonin reuptake inhibitors (SSRIs) or clomipramine
- CBT tailored to BDD

Following response to acute treatment, patients receive maintenance treatment to prevent recurrences. (See 'Maintenance treatment' below.)

Initial treatment — For patients with mild to moderate BDD, we suggest either pharmacotherapy or CBT that is specifically tailored to BDD [4-7]. However, a reasonable alternative is pharmacotherapy plus CBT [2].

Randomized trials have found that pharmacotherapy or CBT is each efficacious, and no head-to-head trials have compared pharmacotherapy with CBT. Medications are usually more available than CBT, and the drugs that are used for BDD can also treat many of its comorbidities, such as unipolar major depression, social anxiety disorder, panic disorder, generalized anxiety disorder,

obsessive-compulsive disorder, bulimia nervosa, and binge eating disorder [2]. Other factors to consider in choosing a treatment regimen include patient preference, prior treatment history, pregnancy status, medication safety and side effects, and the likelihood that the patient will fully participate in and adhere to the recommended treatment [4]. The use of pharmacotherapy or CBT is consistent with treatment guidelines [8] and the results from systematic reviews [9-11].

Pharmacotherapy — Initial pharmacotherapy for BDD consists of SSRIs, based upon randomized trials (algorithm 1) [2,12-14]. We typically choose fluoxetine, sertraline, or escitalopram because they are generally well tolerated; in addition, escitalopram is less likely to cause drug-drug interactions than other SSRIs. If the insurance company will not reimburse for doses that exceed the highest dose approved by the US Food and Drug Administration (FDA), fluoxetine is a good choice. Nevertheless, other SSRIs are suitable as initial treatment. No head-to-head trials have compared different SSRIs with each other, and there is no compelling reason to think that one SSRI is more efficacious than another. However, our experience indicates that paroxetine is often not as well tolerated as other SSRIs. In addition, we typically do not use citalopram because the FDA dosing limit is now too low to usually treat BDD effectively. Treatment of BDD with SSRIs often requires high doses (table 1), and there are concerns about the cardiac side effects of citalopram at higher doses. (See "Selective serotonin reuptake inhibitors: Pharmacology, administration, and side effects", section on 'Citalopram'.)

SSRIs often decrease the BDD symptoms of obsessional preoccupation, compulsive behaviors, distress, and functional impairment [4-6]. In addition, these medications often improve depression, anxiety, suicidal ideation and behavior, anger and hostility, somatic symptoms, and mental health-related quality of life. Monotherapy with SSRIs is as effective for patients with delusional BDD beliefs as for patients with nondelusional beliefs.

Evidence for the efficacy of SSRIs includes a 12-week randomized trial that compared fluoxetine (mean dose 78 mg/day at week 12) with placebo in 67 patients with BDD [12]. Response (reduction of baseline symptoms ≥30 percent) occurred in more patients treated with fluoxetine than placebo (53 versus 18 percent), and functional improvement was greater with fluoxetine. The benefit of fluoxetine was independent of psychiatric comorbidity (major depression, obsessive-compulsive disorder, or personality disorder), and was comparable for patients with delusional BDD beliefs and those with nondelusional BDD beliefs. In addition, fluoxetine exerted a protective effect against worsening of suicidal ideation, compared with placebo [15]. However, drowsiness and gastrointestinal distress occurred in more patients treated with fluoxetine [12]. Other evidence for the acute efficacy of SSRIs includes multiple prospective

observational studies [16-19], as well as a randomized maintenance trial. (See 'Maintenance treatment' below.)

Administration

Starting dose — The usual starting dose for SSRIs that are typically used to treat BDD in adults are as follows (table 1) [13]:

- Escitalopram – 10 mg/day
- Fluoxetine – 20 mg/day
- Fluvoxamine – 50 mg/day
- Paroxetine (immediate release) – 20 mg/day
- Sertraline – 50 mg/day

Mean dose — Medication doses needed to successfully treat BDD are often substantially higher than those typically needed to successfully treat other disorders such as major depression. Although occasional patients improve with relatively low doses (eg, fluoxetine 20 or 40 mg/day), many do not. In our clinical practice, the approximate mean daily doses are as follows [6,13,20,21]:

- Escitalopram – 40 mg/day (an electrocardiogram [ECG] is recommended at doses greater than 30 mg/day)
- Fluoxetine – 70 mg/day
- Fluvoxamine – 300 mg/day
- Paroxetine (immediate release) – 60 mg/day
- Sertraline – 200 mg/day

Maximum dose — For improvement or an optimal response, the highest dose approved by the FDA is sometimes exceeded, comparable to treatment of other illnesses, such as obsessive-compulsive disorder. Maximum dose alerts in some electronic prescribing systems are incorrect and not consistent with the highest doses approved by the FDA [22]. Prior to prescribing maximum doses, we suggest that clinicians evaluate patients for cardiac risk factors, such as long QT syndrome.

The maximum doses that we use in adults, if tolerated, are as follows [10,13]:

- Escitalopram – 60 mg/day (an ECG is recommended at doses greater than 30 mg/day)
- Fluoxetine – 120 mg/day
- Fluvoxamine – 450 mg/day
- Paroxetine (immediate release) – 100 mg/day

- Sertraline – 400 mg/day

Somewhat lower initial and maximum doses may be more suitable for children and adolescents and some older adult patients. It is generally recommended that the highest dose approved by the FDA not be exceeded when treating younger youth (eg, age 10 years), and caution should be used with older adults [11].

Patients receiving escitalopram at doses greater than 30 mg/day should be assessed with an ECG as the dose is titrated up. As an example, a patient who is ultimately administered 60 mg/day should be monitored with an ECG at 40, 50, and 60 mg/day. If the ECG is normal at the final dose, subsequent ECGs are repeated only when clinically indicated; if the ECG is abnormal at any point, cardiology should be consulted. We suggest that clinicians also get an ECG at high doses of other SSRIs (eg, the maximum doses noted above).

We typically do not use citalopram due to FDA concerns that high doses of citalopram can cause cardiac side effects. (See 'Pharmacotherapy' above and "Selective serotonin reuptake inhibitors: Pharmacology, administration, and side effects", section on 'Citalopram'.)

No fixed-dose randomized trials have compared different doses of an SSRI for BDD. However, a retrospective study evaluated medication trials in 99 patients with BDD who had received an SSRI or clomipramine [3]. Trials were deemed “minimally adequate” if they lasted 10 weeks and used the following daily doses: citalopram 40 mg, clomipramine 150 mg, escitalopram 20 mg, fluoxetine 40 mg, fluvoxamine 150 mg, paroxetine 40 mg, or sertraline 150 mg. Treatment that was minimally adequate was associated with greater improvement in BDD and less severe current BDD symptoms, compared with less adequate treatment trials. Similar results were observed for medication trials that were “optimal” for BDD, which lasted at least 12 weeks and if necessary, used (or for SSRIs exceeded) the highest dose approved by the FDA.

Doses are typically titrated up by increments that are equivalent to the starting dose, every two to three weeks to the highest FDA approved dose by week 6 to 10, if tolerated and if a lower dose does not improve symptoms [6,13]. However, for escitalopram, we attempt to achieve a dose of 30 mg/day by week 6 to 10 (the FDA’s highest approved dose of 20 mg/day for escitalopram appears to be low relative to the highest approved doses of other SSRIs [23]). A faster titration schedule can be attempted for severely ill (eg, highly suicidal) patients in the context of more frequent monitoring for response and adverse effects. Alternatively, a slower schedule can be used for youth or older adult patients, and for patients who experience side effects, report a history of poor SSRI tolerability, or show early improvement. If patients demonstrate early improvement, or substantial improvement at any point before reaching the highest dose approved by the FDA, we generally give the current dose more time to further

improve symptoms before raising the dose again. We recommend a slower dose titration when doses above the highest FDA approved doses are used (eg, increasing the dose every four weeks).

Before determining whether the drug is beneficial, we suggest that patients receive an acute medication trial lasting 12 to 16 weeks [2,11,13]. For at least 4 of these weeks, clinicians should prescribe the highest dose approved by the FDA (or for escitalopram, 30 mg/day) if needed and tolerated.

All medications prescribed for BDD are off-label because no pharmaceutical company has pursued an FDA indication for BDD [11].

General information about the pharmacology, administration, and side effects of the SSRIs is discussed separately. (See "Selective serotonin reuptake inhibitors: Pharmacology, administration, and side effects".)

Cognitive-behavioral therapy — CBT is the psychotherapy of choice for BDD and has been more widely studied than other psychotherapies [11,24]. Although CBT is usually administered individually face-to-face (or by Health Insurance Portability and Accountability Act [HIPAA]-compliant video if face-to-face treatment is not possible or is less preferable), patients have also been treated in a group format [25] and with internet-based CBT [26].

CBT for BDD must be tailored to specifically address BDD's unique symptoms; otherwise, it is unlikely to be helpful. Although the techniques and elements of CBT for BDD overlap with those that are used for other psychiatric disorders, BDD differs from other disorders in important ways and thus needs a somewhat different CBT approach. Two empirically supported treatment manuals are available for therapists [27,28], one of which can be adapted for treating adolescents [27,29].

The number and frequency of individual CBT sessions in different studies has varied substantially, from 12 weekly hour-long sessions to 12 weeks of daily 90-minute sessions. Our clinical experience suggests that most patients need at least six months of weekly treatment. Patients with mild BDD may improve with fewer sessions, whereas those with more severe BDD may require longer treatment or more frequent treatment sessions. Patients generally receive a full course of therapy.

The techniques that are used in CBT adapted for BDD include [24,27]:

- Psychoeducation.
- Motivational interviewing (unless the patient is already highly motivated for treatment).

- Goal setting and developing a CBT model of the patient's BDD symptoms.
- Cognitive restructuring.
- Exposure to avoided situations in combination with behavioral experiments.
- Prevention of rituals.
- Perceptual retraining – Perceptual retraining includes elements of mindfulness training.
- Advanced cognitive strategies (eg, focusing on self-esteem).
- Additional strategies for patients with relevant symptoms, such as habit reversal training for repetitive skin picking or hair plucking, activity scheduling/behavioral activation for patients with depression, and specific strategies that target cosmetic treatment seeking or muscle dysmorphia if present.
- Daily homework between sessions.
- Relapse prevention.

CBT is a structured treatment [27]. The first three to four sessions are spent setting the groundwork for therapy. This includes gaining an understanding of the patient's BDD symptoms and other psychopathology, providing psychoeducation about BDD, and developing an individualized cognitive-behavioral model of the patient's illness, including hypothesized mechanisms that cause and/or maintain the BDD symptoms. This model helps the patient understand how CBT may be beneficial. Treatment goals are identified, and along with the individualized model, used to create a treatment plan. It is important to incorporate the patient's values and goals into the treatment.

Another component of the introductory sessions, if needed, is motivational interviewing to address patient ambivalence about participating in treatment [30]. Clinicians attempt to motivate patients to change their thoughts and behaviors by expressing empathy with patients, eliciting both their reasons to change and ambivalence about change, not arguing with patients about their ambivalence, helping patients develop an awareness of the discrepancy between their present situation and what they desire, and setting treatment goals regarding valued life activities (eg, developing relationships or advancing one's career). Motivational interviewing may be needed after the introductory sessions to retain patients in treatment and enhance adherence.

After laying this groundwork, treatment focuses upon the core elements of CBT [27]. In most studies, the core elements included cognitive restructuring, exposure (eg, to avoided social situations) in combination with behavioral experiments, prevention of rituals/repetitive behaviors (eg, mirror checking), perceptual retraining/mindfulness when looking in a mirror (a five-minute exercise that helps patients see themselves holistically and nonjudgmentally; it does not involve staring in the mirror at perceived flaws), advanced cognitive strategies that identify and modify deeply held beliefs (eg, "I am worthless, and no one will ever love me"), and relapse prevention. During exposures, CBT incorporates behavioral experiments in which patients test their maladaptive beliefs (eg, "My nose is huge, and at least 70 percent of the people I see in the store will stare at me for at least five seconds because I look so bad"). Behavioral experiments are incorporated into exposures because many patients have little to no insight, and exposure without behavioral experiments may be insufficient.

CBT treatment strategies that may be helpful when used in addition to the core elements include habit reversal training (behavioral therapy for reducing BDD-related skin picking or hair plucking), and a focus upon depressive symptoms if needed (eg, activity scheduling/behavioral activation and cognitive restructuring). If patients are receiving or contemplating cosmetic treatment for BDD, this also needs to be addressed. Techniques can also be modified if needed for muscle dysmorphia.

Therapists need to encourage patients to do CBT exercises while not pushing patients so hard that they drop out of treatment. Exposure exercises are usually done gradually, with use of an exposure hierarchy that the patient and therapist develop together. Cognitive restructuring skills are usually learned before exposure, because using cognitive skills during exposure may make exposures more tolerable.

The final sessions are devoted to relapse prevention. This includes reviewing the patient's progress and identifying ongoing problems; reinforcing the most helpful CBT components; anticipating future stressful situations and planning responses; teaching patients to identify and monitor subsyndromal symptoms, differentiating "slips" or lapses (recurrence of BDD symptoms) from full-blown relapses of the disorder; discussing risk factors for relapse; and developing a plan that patients will follow if problems occur, including the possibility of resuming treatment.

After treatment ends, it is important that patients continue to practice CBT skills to decrease the risk of relapse. In addition, patients may benefit from occasional (eg, once every two months) booster sessions with therapists to help maintain acquired skills or manage recurrent symptoms.

Certain techniques should be avoided. We recommend that patients not be told to stare in the mirror at perceived appearance flaws, because doing so reinforces the BDD ritual of mirror checking, and symptoms may worsen [24]. Instead, patients should attempt ritual prevention to refrain from mirror checking, and they should briefly look in the mirror only when necessary, in a mindful, nonjudgmental, and holistic way (taking in all aspects of their appearance, not just disliked areas), as described above in this section.

We also recommend that therapists avoid more "extreme" exposures and behavioral experiments (eg, painting big red spots on one's face and going out in public, or holding a sign in public asking strangers to tell patients that they are ugly) [24]. Because patients with BDD are often suicidal, usually have little or no insight, and may potentially be aggressive, such exposures may have negative outcomes, including worsening symptoms and suicidal ideation and behavior. Many patients with BDD are too depressed and emotionally fragile to tolerate potentially embarrassing or humiliating exposures. In addition, one goal of exposures is to help patients learn that other people do not take special notice of them in a negative way or make fun of them; extreme exposures may actually elicit aversive responses from others.

Evidence supporting the use of CBT for patients who are acutely ill with BDD includes multiple randomized trials [14,24]. As an example:

- A meta-analysis of seven trials compared CBT with control conditions (eg, waiting list or supportive psychotherapy) in 299 patients with BDD [31]. The primary findings included the following:
  - Improvement of BDD was superior with CBT than the control conditions and the clinical benefit (effect size) was large.
  - Improvement of depressive symptoms and insight was greater with CBT and the clinical benefit was moderate.
  - Discontinuation of treatment was similar among patients who received CBT and controls.

  In addition, posttreatment assessment of patients (n = 26) who participated in one randomized trial and received CBT found that the benefits lasted for up to 12 months [32].
- A subsequent, 24-week trial compared weekly CBT with supportive psychotherapy plus psychoeducation in 120 outpatients with BDD (approximately half the patients continued to receive pharmacotherapy that they were taking prior to the trial, which was not changed during the study). [33]. Across the two study sites, CBT was more consistently

efficacious in reducing BDD symptom severity and quality of life, whereas the outcome was more variable with supportive psychotherapy. Symptom improvement was maintained in both treatment groups throughout the six-month follow-up.

Treatment-resistant patients — BDD may not respond satisfactorily to initial treatment with an SSRI or CBT specifically tailored for BDD; in some cases this is due to significant life stressors and/or comorbid psychopathology (eg, unipolar major depression, social anxiety disorder, or a personality disorder). If a stressor or disorder other than BDD is more salient than BDD, treatment should refocus upon the primary problem. The comorbidity of BDD is discussed separately. (See "Body dysmorphic disorder: Clinical features", section on 'Comorbidity'.)

If BDD is the primary problem and has not responded to initial treatment, next-step treatment depends upon whether the patient initially received pharmacotherapy or CBT.

Patients initially treated with pharmacotherapy — Initial pharmacotherapy for BDD that yields inadequate improvement is initially managed by assessing adherence and the dose of the initial drug. For patients with good adherence to medications that are properly dosed, subsequent treatment includes either switching to a different SSRI or augmenting the initial drug, depending upon the degree to which the initial drug is beneficial and tolerable. In addition, BDD-specific CBT can be added to medication treatment if the patient is not already receiving it. The suggested doses for SSRIs, and the use of CBT, are discussed elsewhere in this topic. (See 'Administration' above and 'Cognitive-behavioral therapy' above.)

- Assess adherence – For patients who obtain insufficient symptom relief from a 12- to 16-week SSRI trial that reaches the highest dose approved by the FDA (or for escitalopram, 30 mg/day) for at least 4 of those weeks, clinicians should assess adherence by asking how often the patient does not take the medication. Nonadherence is common during treatment of psychiatric disorders. If adherence has been suboptimal (eg, missing 20 percent or more doses), this should be addressed with motivational interviewing [34,35]. Improving adherence with pharmacotherapy can convert nonresponders to responders.

- Assess the dose – If symptoms persist despite good medication adherence and the medication is well tolerated at the highest dose approved by the FDA, we suggest gradually increasing the SSRI dose (excluding citalopram). The rate of titration can be slower and/or dose increments smaller when increasing the dose above the FDA highest dose. Tolerability should be closely monitored. If clinically necessary, clinicians should use the maximum SSRI dose. (See 'Maximum dose' above.)

- Choosing next step treatment – For patients who do not improve sufficiently at the maximum SSRI dose, next step treatment rests upon determining whether the drug

provided any benefit and is tolerable. If symptoms do not improve even minimally with the first SSRI, either augmenting the SSRI or discontinuing it and switching to another SSRI are both reasonable options. Nevertheless, if the maximum SSRI dose is sufficiently tolerable, we generally prefer to augment the SSRI with another medication (eg, second-generation antipsychotic or buspirone), especially if the SSRI provides at least some clinically meaningful benefit. Limited data, as well as our clinical experience, suggest that augmentation of an SSRI with a second medication may further improve BDD symptoms [5,6,13]. Augmentation has the advantage of maintaining partial improvement of BDD symptoms, as well as other gains that might have occurred with the initial drug, such as improvement in depressive symptoms, anxiety, suicidality, anger/hostility. In addition, we suggest augmentation after multiple (eg, two) monotherapy trials fail to provide adequate relief [5].

If the initial drug is poorly tolerated, we suggest discontinuing it and administering one or more trials with another SSRI (ie, monotherapy with a new SSRI) (algorithm 1). The process of switching from one SSRI to another is discussed elsewhere. (See "Switching antidepressant medications in adults", section on 'Between SSRIs'.)

Evidence regarding the relative efficacy of switching and augmentation includes a retrospective study, which found that augmenting an SSRI with another medication was more effective than switching to another SSRI if the initial SSRI trial resulted in at least partial improvement (as opposed to no improvement) [21].

Options for augmentation include a second-generation antipsychotic, buspirone, a glutamate modulator (N-acetylcysteine or memantine), or clomipramine. The relative efficacy of these augmentation approaches has not been studied; however, a second-generation antipsychotic, buspirone, or a glutamate modulator is often a good initial choice. We typically prescribe add-on pharmacotherapy for approximately 12 weeks before determining whether the regimen is beneficial [5,6,13].

Augmenting the SSRI with another medication is usually deferred until the patient has received an adequate SSRI trial in terms of dose and duration, as SSRIs are often effective, and monotherapy reduces the risk of medication side effects and drug-drug interactions. However, for patients who are severely ill, agitated, potentially aggressive, and/or at risk of suicide, augmentation with a second-generation antipsychotic can be implemented before the patient has had an adequate trial of an SSRI.

- **Second-generation antipsychotics** – Adding a second-generation antipsychotic to an SSRI may be useful, especially when the patient has delusional BDD beliefs or

prominent delusions of reference, is very agitated, is moderately or severely depressed, or appears at risk for suicidal or violent behavior. Based upon clinical experience, we often prefer aripiprazole. The dose of the add-on antipsychotic is comparable to doses used in treating resistant depression. (See "Unipolar depression in adults: Treatment with second-generation antipsychotics", section on 'Medication doses and side effects'.)

Evidence supporting augmentation with antipsychotics includes observational studies [36,37]. As an example, a retrospective study included 21 patients with BDD who received an SSRI, CBT, and an adjunctive second-generation antipsychotic, including aripiprazole, quetiapine, or risperidone. Response, defined as reduction of baseline symptoms ≥25 percent, occurred in 13 patients (62 percent), whereas premature discontinuation of treatment occurred in only 2 patients (10 percent) [38].

Other small studies suggest that some antipsychotics may perhaps not be beneficial as adjunctive treatment. In an eight-week randomized trial that compared the first-generation antipsychotic pimozide (mean endpoint dose 2 mg/day) with placebo as add-on treatment in 28 patients who had not responded to an adequate trial of fluoxetine, improvement of BDD symptoms, including BDD delusions about physical appearance, was minimal and comparable for the two groups [39]. In a case series of six patients, augmentation of fluoxetine with olanzapine (target dose 15 mg/day) was not efficacious for BDD symptoms [40].

- **Buspirone** – If patients are more severely anxious but not severely depressed or highly suicidal, buspirone is often preferred over an atypical antipsychotic. Relatively high doses of buspirone are often needed (eg, up to 60 or 90 mg/day) and the medication is usually well tolerated [13]. A retrospective study of 36 patients found that response to buspirone occurred in 12 (33 percent) [21]. The mean dose was 57 mg/day and the drug was well tolerated. In addition, a prospective observational study of 13 patients found that improvement occurred in 6 (46 percent) [41].

- **Glutamate modulators** – Based upon our clinical experience, it may help to augment an SSRI with memantine or N-acetylcysteine. Memantine is started at 5 mg/day and titrated up to 10 to 20 mg twice daily if necessary. N-acetylcysteine is initiated at 600 mg/day and titrated up to 1200 to 1800 mg twice a day if needed.

  No studies have evaluated the efficacy of memantine or N-acetylcysteine for BDD. However, some patients with obsessive-compulsive disorder, which has similarities to BDD (eg, obsessions and excessive repetitive behaviors), respond to these drugs when used to augment an SSRI [11,42-45].

- **Clomipramine** – Combining an SSRI with clomipramine should be done cautiously with close monitoring of clomipramine serum levels and ECGs, because SSRIs may increase serum concentrations of clomipramine, which has a low therapeutic index. A retrospective study of nine patients who were initially treated with an SSRI and then received augmentation with clomipramine found that four (44 percent) responded [21]. The dose of clomipramine and monitoring patients who receive it are discussed elsewhere in this topic. (See 'Treatment-refractory patients' below.)

Based upon a small number of cases, other options for augmentation include venlafaxine, bupropion, and levetiracetam [11,13,46].

For prominent agitation, anxiety, or insomnia, benzodiazepines (eg, lorazepam or clonazepam) may be helpful, especially early in treatment before an SSRI has had time to work [5,6]. Benzodiazepines should not be prescribed to patients who have misused these medications, other substances, or alcohol.

Although patients treated with an SSRI plus another serotonergic drug such as buspirone, clomipramine, or venlafaxine may be at increased risk for the serotonin syndrome, the risk appears low [13]. The serotonin syndrome is discussed elsewhere. (See "Serotonin syndrome (serotonin toxicity)".)

Patients initially treated with cognitive-behavioral therapy — For patients who do not respond satisfactorily to initial treatment with CBT specifically tailored for BDD, we suggest first ascertaining whether homework adherence has been good, because nonadherence is common during treatment of psychiatric disorders. Daily practice is necessary to learn CBT skills. If adherence has been suboptimal, we suggest motivational interviewing to increase adherence; improving adherence with CBT homework can convert nonresponders to responders.

If adherence has been good, but an evidence-based BDD-focused CBT treatment manual has not been used, we suggest administering CBT according to such a manual [27,28]. Other options include a more frequent schedule of visits for CBT (eg, two or three times per week rather than once per week), longer CBT sessions (eg, two to three hours), and/or a longer course of CBT (eg, nine months rather than six months).

If response to CBT remains unsatisfactory despite good adherence, using a CBT treatment manual, more frequent sessions, longer sessions, and a longer course of CBT, we suggest administering one or more trials with SSRIs.

In addition, if one of the empirically based manuals has already been used, the other manual can be tried, and the patient can change therapists as well.

Treatment-refractory patients — Patients with BDD may not respond sufficiently to multiple (eg, two to three) SSRI trials, either as monotherapy or with augmentation with another drug and/or CBT. For these patients, we suggest discontinuing the SSRI and switching to monotherapy with the tricyclic clomipramine. Treating BDD with clomipramine is consistent with treatment guidelines [8,11] and conclusions from systematic reviews [9]. Clomipramine frequently decreases the BDD symptoms of obsessional preoccupation, compulsive behaviors, distress, and functional impairment [4-6]. In addition, the medication often improves depression, anxiety, suicidal ideation and behavior, anger and hostility, somatic symptoms, and mental health-related quality of life.

The process for switching patients from an SSRI to clomipramine is discussed separately. (See "Switching antidepressant medications in adults", section on 'SSRI to tricyclic'.)

The usual doses for clomipramine monotherapy that are typically used to treat BDD in adults are as follows (table 1) [13]:

- Starting dose – 25 mg/day
- Mean dose – 200 mg/day
- Maximum dose – 250 mg/day

Clomipramine should not exceed more than 250 mg/day because of poor tolerability at higher doses, and serum concentrations should be monitored during titration for safety (excessively high serum levels may occur in patients who slowly metabolize the drug). Combined serum concentrations of clomipramine plus desmethylclomipramine, drawn approximately 12 hours after the last dose, should not exceed 500 ng/mL to minimize adverse events.

In addition, we recommended an ECG during titration and at the highest dose reached. If the ECG is normal, subsequent ECGs are repeated only when clinically indicated; if the initial ECG is abnormal, cardiology should be consulted.

Evidence for the efficacy of treating BDD with clomipramine includes a 16-week study that compared clomipramine (mean dose 138 mg/day) with desipramine (147 mg/day) in 29 patients with BDD [47]. Patients were initially assigned to a study drug for eight weeks and then blindly crossed over to the other drug for eight weeks, with the order determined randomly. Improvement of symptoms was greater during treatment with clomipramine than desipramine, both at week 8 and week 16. In addition, improvement of functioning was greater with clomipramine. Clomipramine was equally effective in patients with delusional BDD beliefs and in patients with nondelusional BDD beliefs, and it was equally effective for patients with and without comorbid psychopathology (eg, depression). Side effects for the two treatments were comparable. The use of desipramine controlled for the nonspecific anxiolytic and antidepressive

effects of clomipramine. In addition, desipramine is less serotonergic than clomipramine, and thus served to demonstrate the superiority of antidepressants with serotonergic properties for treating BDD.

Although no head-to-head trials have compared clomipramine with SSRIs, clomipramine is generally reserved for use when SSRIs have not been helpful, because tolerability is usually better with SSRIs than tricyclics [2]. However, if an SSRI has been partially helpful, clomipramine can be added to the SSRI, while carefully monitoring clomipramine levels and ECGs.

If patients obtain insufficient symptom relief from clomipramine, we suggest assessing adherence and increasing the dose of the drug; however, clinicians should not exceed 250 mg/day, the highest dose approved by the FDA. Other options include discontinuing the drug and switching to an SSRI that was not previously prescribed; augmenting clomipramine with a second-generation antipsychotic, buspirone, or a glutamate modulator; and/or adding CBT if not already received. Augmentation options and CBT are discussed elsewhere in this topic. (See 'Treatment-resistant patients' above and 'Cognitive-behavioral therapy' above.)

Another option for patients with BDD who do not respond to clomipramine is venlafaxine or another serotonin-norepinephrine reuptake inhibitor; a prospective study of 17 patients with BDD who were treated with venlafaxine for an average of 13 weeks found that the mean level of symptoms improved [46]. The average endpoint dose of venlafaxine was 164 mg/day; nevertheless, the dose used to treat BDD may need to reach or exceed 375 mg/day. In our clinical experience, duloxetine up to 120 mg/day if needed and tolerated, may also be effective.

If patients obtain little symptom relief from venlafaxine, desvenlafaxine, or duloxetine, we suggest other serotonergic medications, such as vilazodone or vortioxetine, although data on their efficacy are lacking. Clinical experience suggests that vilazodone up to 60 mg/day (if needed and tolerated) can be effective and may be well tolerated for patients who have difficulty tolerating multiple SSRIs.

Other options — Based upon clinical experience, most patients with BDD eventually respond to SSRIs, CBT, adjunctive medications, and/or clomipramine, provided that treatment is properly administered and patients adhere to it. For BDD that does not respond adequately to initial and subsequent treatment suggested for treatment-resistant and treatment-refractory patients, other options include the following:

- Somatic treatments
    - Levetiracetam – Levetiracetam may possibly be useful, either as monotherapy or as augmentation of SSRIs or clomipramine. In a prospective, 12-week observational study

of 17 patients treated with levetiracetam (mean endpoint dose 2044 mg/day) as monotherapy or add-on therapy, BDD and depressive symptoms improved, as did functioning [48].

- Bupropion – Case reports (total n = 3) suggest bupropion monotherapy may possibly help patients with BDD, especially those with prominent depression [13,49,50]. We suggest combining bupropion with an SSRI rather than using bupropion as monotherapy.

- Bright light therapy – For patients with BDD and comorbid depression, bright light therapy may be helpful as an adjunct to medication and/or CBT, based upon clinical experience [13].

- Repetitive transcranial magnetic stimulation – For patients who do not substantially improve with multiple optimized medication trials and CBT specific for BDD, a reasonable option is transcranial magnetic stimulation (eg, deep transcranial magnetic stimulation) [2]. Although data on the efficacy of transcranial magnetic stimulation for BDD are limited, and optimal stimulation sites and parameters for BDD are not known [13] multiple randomized trials indicate that it is efficacious for obsessive-compulsive disorder, which has similarities to BDD (eg, obsessions and excessive repetitive behaviors) [51].

  Information about transcranial magnetic stimulation is discussed separately in the context of depression. (See "Unipolar depression in adults: Indications, efficacy, and safety of transcranial magnetic stimulation (TMS)".)

- Monoamine oxidase inhibitors – Although monoamine oxidase inhibitors have been prescribed for BDD, they are rarely used given their multiple safety risks and adverse effects, and the availability of other options [6,11,13].

- Adjunctive psychotherapy – Based upon clinical experience, patients with BDD may benefit from one or more of the following as add-on treatment to medication and/or CBT:

  - Dialectical behavior therapy
  - Supportive psychotherapy
  - Mindfulness training
  - Family therapy

If supportive psychotherapy or family therapy are used, we suggest that the therapy be administered by a therapist other than the therapist who provides CBT. This enables the CBT

therapist to help the patient stay on track with CBT, which is highly structured.

For patients with excessive amounts of free unstructured time, activity scheduling/behavioral activation is recommended so patients have less time to obsess and engage in BDD rituals.

Education of family members about BDD, which can be done as part of CBT or medication treatment, can also be helpful. As an example, it can be useful to explain the symptoms of the disorder, its treatment, that BDD is not vanity or selfishness, how to not accommodate BDD rituals, and how the family can support the person with BDD.

SEVERE ILLNESS

Severe body dysmorphic disorder (BDD) is characterized by clinical features such as:

- Suicidal behavior – Self-injurious behavior that is intended to kill oneself, but is nonfatal.
- Active suicidal ideation (eg, "I want to kill myself"), which may include a specific plan and intent. Active suicidal ideation is distinguished from passive suicidal ideation (eg, "Life is not worth living" or "I wouldn't mind if I didn't wake up").
- Severe comorbidity (eg, severe depression or substance abuse).
- Substantial distress or substantially impaired functioning (eg, unable to work and/or socialize) because of BDD symptoms.

Additional information about the clinical features of BDD, including suicidality and comorbidity, are discussed separately. (See "Body dysmorphic disorder: Clinical features".)

Severely ill patients should be referred to a psychiatrist for management. Patients with recent suicidal behavior (eg, in the past week) or active suicidal ideation generally require hospitalization to stabilize safety. Those without active suicidal ideation or suicidal behavior may receive outpatient treatment, intensive outpatient treatment, partial hospital treatment, or residential treatment that is specifically tailored to BDD, depending upon the clinical urgency. Patients with severe BDD and a severe comorbid disorder (eg, substance abuse that appears triggered largely by BDD symptoms) need concurrent treatment that focuses upon both BDD and the comorbidity.

First line — For patients with severe BDD, we suggest initial treatment with pharmacotherapy plus cognitive-behavioral therapy (CBT) that is specifically tailored to BDD [2].

First line pharmacotherapy for severe BDD is typically a selective serotonin reuptake inhibitor (SSRI). Choosing and administering a specific medication is discussed elsewhere in this topic, as is administration of CBT. (See 'Pharmacotherapy' above and 'Cognitive-behavioral therapy' above.)

For severe BDD with suicidal behavior or active suicidal ideation, we suggest concomitant treatment that is consistent with guidelines and manuals for suicidality. (See "Suicidal ideation and behavior in adults", section on 'Management'.)

If CBT that is tailored to BDD is not available, or if patients decline CBT, either pharmacotherapy plus supportive psychotherapy or pharmacotherapy alone is a reasonable alternative for many patients, or the patient can be referred to a specialized intensive treatment program for BDD. Information about supportive psychotherapy is discussed separately in the context of depression. (See "Unipolar depression in adults: Supportive psychotherapy".)

If patients are too severely ill to meaningfully participate in CBT, we suggest medication plus supportive psychotherapy or pharmacotherapy alone, plus a focus on suicidality if needed, until the patient can participate in CBT. CBT requires patient motivation and work during and in between sessions. Partial response to initial medication treatment can make CBT more feasible.

Some patients who have been severely ill for a long time (eg, decades) may benefit from social skills training or work training following improvement with medication and CBT.

Evidence that supports using pharmacotherapy plus CBT for severe BDD with or without suicidality includes the following:

- Randomized trials have demonstrated the efficacy of pharmacotherapy for BDD and other trials have found that CBT was efficacious. (See 'Pharmacotherapy' above and 'Cognitive-behavioral therapy' above.)

- A 12-week randomized trial in 67 patients with BDD found that fluoxetine (mean dose 78 mg/day at week 12) exerted a protective effect against worsening of suicidal ideation, compared with placebo [12,15].

- A 12-week, prospective observational study in 15 patients with BDD found that escitalopram (mean dose 28 mg/day) was associated with decreased suicidal ideation [16].

In addition, combining pharmacotherapy and CBT is consistent with treatment guidelines [8,11]. However, no randomized trials have compared combination treatment with medication alone or with CBT alone.

Treatment resistance — Severe BDD may not respond to first line treatment with an SSRI plus CBT tailored to BDD. Subsequent treatment consists of sequential pharmacotherapy trials that proceed in a manner comparable to the next step treatments used for mild to moderate BDD that is unresponsive to initial treatment. Clinicians should also evaluate the need for motivational interviewing for insufficient adherence and use of an empirically based treatment manual to improve the response to CBT. Sequential medication trials and the means for improving the effectiveness of CBT are discussed elsewhere in this topic. (See 'Treatment-resistant patients' above and 'Treatment-refractory patients' above and 'Other options' above.)

In addition, outpatients with severe BDD that does not respond to initial treatment should be evaluated for a higher level of care. Depending upon the clinical urgency, the patient may require referral to more intensive treatment in the setting of intensive outpatient treatment, partial hospital treatment, or residential treatment that provides evidence-based treatment for BDD.

Based upon clinical experience, electroconvulsive therapy is occasionally used for severe BDD [11,13,52,53]. Although most case series data suggest that electroconvulsive therapy is usually not effective for BDD [11,13], electroconvulsive therapy combined with a serotonergic drug and psychotherapy is sometimes used for patients with severe comorbid depression (especially if depression does not appear secondary to BDD), as well as for patients who have active suicidal ideation or suicidal behavior [11,13,52,53].

In one case report, improvement of BDD symptoms occurred with deep brain stimulation that targeted the ventral capsule/ventral striatum [54].

Information about electroconvulsive therapy and deep brain stimulation is discussed separately in the context of depression. (See "Overview of electroconvulsive therapy (ECT) for adults" and "Unipolar depression in adults: Treatment with surgical approaches", section on 'Deep brain stimulation'.)

MAINTENANCE TREATMENT

For patients with body dysmorphic disorder (BDD) who respond to acute pharmacotherapy, we suggest that they maintain the regimen for at least several (eg, 3 to 4) years, based upon limited evidence [2,13]. Many patients continue their medications longer (eg, 5 to 20 years). Patients with a severe course of illness, such as those who have made multiple suicide attempts or suffered multiple relapses or hospitalizations should continue pharmacotherapy indefinitely. In addition, patients who discontinue pharmacotherapy and experience a poor outcome (eg,

suicide attempt or relapse) should resume pharmacotherapy; following stabilization, the regimen should continue indefinitely.

For patients who respond acutely to a regimen that includes a second-generation antipsychotic, it is reasonable after one to two years to attempt a slow taper (eg, over three to six months), and then discontinue the antipsychotic to avoid potential adverse effects. Alternatively, clinicians can maintain the antipsychotic longer with close monitoring, especially for patients who were severely ill or suicidal before treatment with the antipsychotic. The adverse effects of second-generation antipsychotics are discussed separately. (See "Second-generation antipsychotic medications: Pharmacology, administration, and side effects", section on 'Adverse effects'.)

Evidence supporting the use of maintenance treatment includes a randomized trial in patients with BDD (n = 58) who initially responded to open-label escitalopram (mean dose 26 mg/day) and were then randomly assigned to continue escitalopram or to placebo substitution [20]. Randomly assigned treatment was administered for up to six months, during which relapse occurred in half as many patients who received escitalopram than placebo (18 versus 40 percent).

Some patients are discouraged by the prospect of taking medications "forever." In such cases, we emphasize the long-term nature of the relationship between the clinician and patient, and that the need for maintenance treatment will periodically be reevaluated in light of the patient's progress in maintaining symptomatic and functional stability. It may also help to point out that other chronic illnesses such as hypertension, diabetes mellitus, and asthma often require long-term medications.

Patients who respond to cognitive-behavioral therapy should be offered booster sessions (eg, one session every one to three months) if needed [24].

Discontinuation — If patients decide to discontinue an effective pharmacotherapy regimen, we suggest a slow taper over several (eg, three to six) months rather than abrupt discontinuation [5,6]. Patients should be monitored for relapse; the schedule of visits may vary from once every few weeks to every month, depending upon the patient's clinical status. For patients who relapse following discontinuation of an effective medication regimen, we suggest resuming the same regimen. Patients who do not respond to resumption of the same regimen are managed in a manner comparable to the steps used for mild to moderate BDD that is unresponsive to initial treatment. (See 'Treatment-resistant patients' above and 'Treatment-refractory patients' above and 'Other options' above.)

PROGNOSIS

Several studies of patients who were acutely ill with body dysmorphic disorder (BDD) and treated with adequate trials of selective serotonin reuptake inhibitors (SSRIs), clomipramine, or cognitive-behavioral therapy indicate that most patients are likely to do well. Based upon two randomized trials and five prospective observational studies of SSRIs/clomipramine for BDD, response rates ranged from approximately 50 to 65 percent in the randomized trials, to 80 percent in observational studies [2,6,13,20]. Response typically occurs gradually, and the mean time to response to medication is 4 to 9 weeks, with occasional patients requiring 14 or even 16 weeks to substantially improve, or longer if a slower medication titration schedule is used.

Following response to an SSRI or clomipramine, maintenance treatment is likely to prevent relapse, and one randomized maintenance trial found further improvement of BDD symptoms during six months of continued escitalopram treatment [20].

The long-term course of illness in BDD is discussed separately. (See "Body dysmorphic disorder: Clinical features", section on 'Course of illness'.)

INFORMATION FOR PATIENTS

Many patients can benefit from reading about their illness at the websites maintained by the International OCD Foundation and by the author of this topic at her website.

SUMMARY AND RECOMMENDATIONS

- **General principles** – Before initiating treatment for body dysmorphic disorder (BDD), we educate patients about the illness and its psychiatric treatments, as well as the likely futility of cosmetic interventions. (See 'General treatment principles' above and "Body dysmorphic disorder: General principles of treatment".)

- **Mild to moderate illness**

  - **Initial treatment** – For patients with mild to moderate BDD, we suggest initial treatment with a selective serotonin reuptake inhibitor (SSRI) or cognitive-behavioral therapy (CBT) that is specifically tailored for BDD, rather than other treatment regimens, such as clomipramine or supportive psychotherapy (**Grade 2C**). However, an SSRI plus CBT is a reasonable alternative.

For patients who receive SSRIs, we typically choose fluoxetine, sertraline, or escitalopram. However, fluvoxamine or paroxetine are reasonable alternatives. Relatively high SSRI doses are often needed to successfully treat BDD (table 1). We generally do not use citalopram because of concerns about the cardiac side effects of citalopram at the higher doses that are frequently required to treat BDD. (See 'Mild to moderate illness' above and 'Initial treatment' above.)

- **Treatment-resistant patients**

  - For patients with mild to moderate BDD who obtain insufficient symptom relief from an optimal trial of an SSRI, we either augment the initial SSRI with a second drug or discontinue the SSRI and administer one or more monotherapy trials with other SSRIs. For patients who achieve clinically meaningful improvement with the initial SSRI, augmentation is generally preferred to switching to another SSRI. Add-on pharmacotherapy options include a second-generation antipsychotic (eg, aripiprazole), buspirone, a glutamate modulator, or clomipramine (algorithm 1). A reasonable alternative for patients who obtain insufficient symptom relief from initial treatment with an SSRI, or from subsequent trials with other SSRIs, is to administer CBT adapted for BDD. (See 'Patients initially treated with pharmacotherapy' above.)

  - Patients with mild to moderate BDD may not respond satisfactorily to CBT despite use of an empirically supported BDD-focused treatment manual, good adherence with homework, and sufficient duration and frequency of CBT. These patients are treated with more frequent sessions of CBT, longer CBT sessions, a longer course of CBT, or one or more courses of SSRIs. (See 'Patients initially treated with cognitive-behavioral therapy' above.)

- **Treatment-refractory patients** – Mild to moderate BDD that does not respond to treatment with SSRIs and/or CBT can be treated with clomipramine monotherapy. (See 'Treatment-refractory patients' above.)

- **Severe illness**

  - Severe core symptoms of BDD – For patients with severe BDD, we suggest pharmacotherapy plus CBT that is specifically tailored to BDD, rather than pharmacotherapy alone or CBT alone (**Grade 2C**). However, if CBT is not available, is declined, or cannot be implemented because the patient is too severely ill to participate, either medication plus supportive psychotherapy or medication alone is a

reasonable alternative for many patients, or the patient can be referred to a specialized intensive treatment program for BDD. (See 'Severe illness' above and 'First line' above.)

- Suicidal ideation or behavior – Highly suicidal patients with BDD often require a higher level of care such as hospitalization and should be treated with pharmacotherapy plus CBT that is focused upon both suicidality and BDD. Electroconvulsive therapy, combined with an SSRI and CBT, may help severely depressed BDD patients who appear at high risk of suicide. (See 'Severe illness' above.)

- **Maintenance treatment** – For patients with BDD who respond to pharmacotherapy, we suggest maintaining the regimen for at least several years (eg, three to four), rather than discontinuing treatment (**Grade 2C**). Patients with a severe course of illness (eg, multiple suicide attempts or relapses) should continue pharmacotherapy indefinitely. Patients who respond to CBT should be offered booster sessions if needed. (See 'Maintenance treatment' above.)

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