

Treatment in Psychiatry begins with a hypothetical case illustrating a problem in current clinical practice. The authors review current data on prevalence, diagnosis, pathophysiology, and treatment. The article concludes with the authors' treatment recommendations for cases like the one presented.

Body Dysmorphic Disorder: Treating an Underrecognized Disorder

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“Mr. H,” a 33-year-old single white male, presented with preoccupations focused on his “thinning” hair, facial “acne,” and “short” fingers. He began to worry excessively about his appearance at age 15, focusing at that time on his “pale” skin and “uneven” cheekbones. Mr. H described his appearance preoccupations as “severely upsetting,” but he was too embarrassed to reveal them to family or friends. Even though he looked normal to others, Mr. H was “100% convinced” that these body areas appeared “abnormal and deformed,” although in the past he had sometimes thought that “maybe I don’t look so bad.” He believed that other people took special notice of him and “laugh at me behind my back because I look so ugly.” Mr. H spent 5 to 6 hours a day thinking about his perceived appearance flaws. He also performed compulsive behaviors for 4 to 5 hours a day, which included excessive mirror checking, comparing his appearance with that of other people, wearing and frequently adjusting a baseball cap to cover his hair, picking his skin to remove tiny blemishes, and searching the Internet for acne and hair loss treatments.

Mr. H’s appearance preoccupations and compulsive behaviors made it difficult to concentrate on his job as a store clerk and often made him late for work. In the past few weeks, he had missed work several times because he thought his skin looked particularly bad on those days. Mr. H avoided many social events with

family and friends as well as sexual intimacy with his girlfriend because of shame over how he looked. In addition, he reported depressed mood, anhedonia, feelings of worthlessness, and passive suicidal ideation, and he had attempted suicide 5 years ago. He attributed his depressive symptoms and suicidal thinking to his appearance concerns, stating, “If I didn’t look like such a freak, I wouldn’t feel so hopeless and depressed.” Mr. H had received treatment from a dermatologist for his acne concerns, which did not diminish his preoccupations. He had never received psychiatric treatment and was ambivalent about trying it because, as he stated, “my appearance problems are real.”

Body Dysmorphic Disorder: Scope of the Problem

Body dysmorphic disorder is a relatively common and often severe disorder that consists of a distressing or impairing preoccupation with an imagined or slight defect in appearance (1; see Table 1). Comorbidity with major depressive disorder, substance use disorders, obsessive-compulsive disorder (OCD), and social phobia is common (2, 3). Psychosocial functioning is usually very poor (4). Nearly all patients experience impairment in social functioning because of symptoms of body dysmorphic disorder (3, 5). They feel ashamed of their “ugliness,” feel anxious around other people, and fear being rejected because of how they look. They may have few or no friends, and they often avoid dating and other social interactions. Most patients also experience impairment in academic or occupational functioning (3, 4). Available data indicate that mental health-related quality of life is markedly poorer for these patients than for the general population, and it appears even poorer than for patients with type II diabetes, a recent myocardial infarction, or clinical depression (major depressive disorder and/or dysthymia) (4). Available data also suggest that quality of life and psychosocial functioning in patients with body dysmorphic disorder appear as poor as, or poorer than, in those with OCD (6, 7).

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Approximately 80% of individuals with body dysmorphic disorder report a history of suicidal ideation, and 24%–28% have attempted suicide (3, 8, 9). The annual rate of completed suicide, while very preliminary because only one study has been done, appears markedly high at 0.3%, which is higher than rates in nearly all other mental disorders (10, 11).

Patients with body dysmorphic disorder may also be aggressive or violent toward property or other people because of their symptoms (for example, because of anger about looking “deformed” or the belief that someone mocked them) (1, 5, 12). Occasionally, surgeons and dermatologists may be victims of violence—even murder—fueled by dissatisfaction with the outcome of cosmetic procedures (1, 12).

Point prevalence rates of 0.7%–2.4% have been reported for body dysmorphic disorder in community samples, and higher rates are reported in inpatient and outpatient settings (13–15). However, body dysmorphic disorder often goes undiagnosed (13, 16, 17). Many patients are ashamed of their symptoms and reluctant to reveal them to others (17). Thus, clinicians need to screen patients for the disorder and be alert to clues to its presence. While body dysmorphic disorder can be difficult to treat, most patients can be treated successfully.

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Clinical Features

Body dysmorphic disorder usually begins during early adolescence, and, without appropriate treatment, it is often chronic (2, 3, 18). The ratio of females to males is in the range of 1:1 to 3:2 (2, 3, 14, 15). Patients with body dysmorphic disorder consider one or more aspects of their appearance to be defective or even disfigured (13, 16). Mr. H used words like “ugly,” “abnormal,” and “deformed” when describing the flaws he perceived in his appearance. In reality, he looked normal. Appearance preoccupations can focus on any body area but often involve the face or head (2, 3, 5, 8, 19). Concerns with the skin (e.g., acne, scars, wrinkles, or color), hair (e.g., thinning or excessive body or facial hair), and nose (e.g., size or shape) are particularly common. The preoccupations occur, on average, for 3–8 hours a day and are difficult to control (13). They are distressing and often associated with anxiety, depressed mood, low self-esteem, and feelings of embarrassment, worthlessness, and shame (8, 13).

Nearly all individuals perform time-consuming repetitive behaviors to check, hide, or improve their perceived appearance flaws (2, 3, 13). The most common are mirror checking, camouflaging the perceived defects (e.g., with a hat or makeup), comparing oneself to others, excessive grooming (e.g., hair plucking or combing), reassurance seeking, touching the “defect” to check it, excessive changes of clothing, dieting, and skin picking (2, 3). Avoid-

ance behaviors are common (13, 16). Mr. H was very self-conscious around others, as he was convinced they considered him ugly. Thus, he avoided socializing, sexual intimacy, and sometimes work.

Degree of insight can range from good to poor to frank delusionality. Before they receive treatment, most patients have poor insight or delusional beliefs (20). Studies have found that 27%–39% of patients are currently delusional—that is, completely convinced that their view of their appearance is accurate and undistorted (20). In addition, like Mr. H, a majority have ideas or delusions of reference, believing that other people take special notice of them in a negative way (e.g., stare or laugh at them) because of how they look (20).

Mr. H is a fairly typical patient, with current symptoms of moderate severity; on the Yale-Brown Obsessive Compulsive Scale Modified for Body Dysmorphic Disorder (21), his score was 32 (possible scores range from 0 to 48). Many sufferers of body dysmorphic disorder are more seriously ill and impaired. The most severely ill patients may become housebound; approximately 30% of patients with the disorder have been completely housebound for at least 1 week because of their symptoms (2, 3). Nearly half have a history of psychiatric hospitalization (3).

Diagnosis

We diagnosed Mr. H with body dysmorphic disorder and major depressive disorder. He met all DSM-IV-TR diagnostic criteria for body dysmorphic disorder (Table 1). Although the criteria do not include compulsive behaviors related to body dysmorphic disorder, these behaviors can be a clue to the presence of the disorder and can help distinguish it from other disorders.

According to DSM-IV-TR, Mr. H would be diagnosed with both body dysmorphic disorder and a psychotic disorder (delusional disorder, somatic type), because his body-dysmorphic beliefs were delusional. Available data suggest that the delusional and nondelusional variants of body dysmorphic disorder have many similarities and likely are the same disorder, which encompasses a range of insight (20).

The importance of diagnosing body dysmorphic disorder has been emphasized (22), but making the diagnosis can pose significant challenges. Patients usually do not spontaneously reveal their symptoms to clinicians, often because they are too embarrassed and ashamed (13, 16, 17). Another barrier to identifying body dysmorphic disorder is poor insight, as many patients do not recognize that their beliefs have a psychological/psychiatric cause and are due to a mental illness (20). Thus, clinicians often need to specifically elicit symptoms of body dysmorphic disorder with focused questioning (Table 2). Screening for the

disorder is especially warranted in patients with depression (especially if depressive symptoms seem related to concerns about appearance), other commonly comorbid disorders, social isolation or self-consciousness in social situations, and repetitive behaviors, such as those described above.

Clinicians need to distinguish body dysmorphic disorder from other disorders with similar symptoms. Some differences between body dysmorphic disorder and other disorders include the following. Social phobia and avoidant personality disorder share symptoms of self-consciousness and anxiety in social situations; however, in body dysmorphic disorder, fears of negative evaluation are due to concerns about physical appearance. In addition, body dysmorphic disorder is characterized by prominent compulsive behaviors. In contrast to major depressive disorder, patients with body dysmorphic disorder have prominent obsessions and compulsive behaviors. Body dysmorphic disorder has similarities to OCD but also some differences, including a focus on appearance, poorer insight, somewhat different comorbidity patterns, and greater suicidality (7, 23). When present, it is important to diagnose body dysmorphic disorder, as it does not appear identical to these other disorders and needs to be targeted in treatment.

Engaging Patients in Treatment

The first step is to engage the patient and establish enough of an alliance that he or she is willing to try psychiatric treatment. This can be difficult to accomplish. Many patients believe that cosmetic treatment is the solution to their appearance problems and would rather see a surgeon, a dermatologist, or a dentist than a psychiatrist. A majority of persons with body dysmorphic disorder seek and receive cosmetic treatment, which appears only rarely to improve their symptoms (24). It can be particularly challenging to engage delusional patients in treatment, as they are often unsure whether psychiatric treatment can really help them. Thus, clinicians need to assess their patients' understanding of and motivation for psychiatric treatment.

However, even patients who maintain that they have an actual physical problem can agree that they are suffering and have poor quality of life. Focusing on the goals of diminishing their preoccupation and distress and improving their functioning and quality of life may facilitate engagement in treatment. Clinical experience suggests that motivational interviewing strategies (25) that are modified for body dysmorphic disorder (26) may be helpful in assessing motivation for change and engaging reluctant patients in treatment.

It is important to take patients' appearance concerns seriously by empathizing with their suffering. We recommend neither dismissing their appearance concerns as unimportant or trivial nor agreeing that there is something wrong with how they look. It is important to offer psychoeducation about body dysmorphic disorder and to convey that appropriate psychiatric treatment is likely to improve their symptoms and quality of life.

TABLE 1. DSM-IV-TR Diagnostic Criteria for Body Dysmorphic Disorder

- A. Preoccupation with an imagined defect in appearance. If a slight physical anomaly is present, the person's concern is markedly excessive.
- B. The preoccupation causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- C. The preoccupation is not better accounted for by another mental disorder (e.g., dissatisfaction with body shape and size in anorexia nervosa).

Treatments

Serotonin reuptake inhibitors (SRIs) and cognitive-behavioral therapy (CBT) are currently considered the first-line treatments for body dysmorphic disorder (13, 27–29).

Pharmacotherapy

All studies to date indicate that SRIs are often efficacious for body dysmorphic disorder (13, 28). In a double-blind parallel-group study (N=67), fluoxetine was significantly more efficacious than placebo (30). In a controlled and blinded crossover study (N=29), clomipramine (a tricyclic antidepressant with SRI properties) was significantly more efficacious than desipramine (31). Symptoms significantly improved in open-label studies of fluvoxamine, citalopram, and escitalopram (Ns ranging from 15 to 30) (32–35), and response rates across these studies ranged from 53% to 73%. Results from the clomipramine study are consistent with data from clinical series and retrospective studies suggesting that serotonergic antidepressants may be more efficacious than nonserotonergic antidepressants (28). In the above studies, patients with delusional body dysmorphic disorder were as likely to improve with SRI monotherapy as those with the nondelusional variant of the disorder (30, 31, 33–35).

Patients who respond to an SRI spend less time obsessing about their appearance and have better control over their preoccupations and repetitive behaviors. Body dysmorphic disorder-related distress, depressive symptoms, anxiety, anger-hostility, functioning, and suicidality often significantly improve (13, 28).

Results of a small open-label trial (N=17) suggested that venlafaxine may be efficacious for body dysmorphic disorder (36); however, serotonin-norepinephrine reuptake inhibitors have not received additional investigation, and therefore they are not currently considered a first-line treatment. Based on case reports and series, a monoamine oxidase inhibitor may be worth trying in patients whose symptoms are treatment resistant (28). Available case reports and series suggest that ECT is generally ineffective for body dysmorphic disorder and secondary depressive symptoms (13, 28).

If one SRI is not effective, another may be (13, 28). Augmentation of SRIs with other agents has not been well researched but may be useful. Clinical series and clinical observations suggest that augmenting an SRI for 6–12 weeks (after SRI monotherapy has been optimized) with buspirone, clomipramine, an atypical antipsychotic, bupropion, or venlafaxine may be helpful (13, 28). (Clomip-

TABLE 2. Questions to Aid in Diagnosing Body Dysmorphic Disorder

1. "Are you very worried about your appearance in any way?" Or: "Are you unhappy with how you look?"
2. Invite the patient to describe their concern by asking, "What don't you like about how you look?" Or: "Can you tell me about your concern?"
3. Ask if there are other disliked body areas—for example, "Are you unhappy with any other aspects of your appearance, such as your face, skin, hair, nose, or the shape or size of any other body area?"
4. Ascertain that the patient is preoccupied with these perceived flaws by asking, "How much time would you estimate that you spend each day thinking about your appearance, if you add up all the time you spend?" Or: "Do these concerns preoccupy you?"
5. Ask, "How much distress do these concerns cause you?" Ask specifically about resulting anxiety, social anxiety, depression, feelings of panic, and suicidal thinking.
6. Ask about effects of the appearance preoccupations on the patient's life—for example, "Do these concerns interfere with your life or cause problems for you in any way?" Ask specifically about effects on work, school, other aspects of role functioning (e.g., caring for children), relationships, intimacy, family and social activities, household tasks, and other types of interference.
7. While compulsive behaviors are not required for the diagnosis, most patients perform at least one of them (usually many); ask about the most common ones: camouflaging, comparing, mirror checking, excessive grooming, reassurance seeking, touching the disliked body areas, clothes changing, skin picking, tanning, dieting, excessive exercise, and excessive weight lifting.

ramine levels must be closely monitored if it is combined with a selective serotonin reuptake inhibitor.) In some patients, lithium and methylphenidate are useful SRI augmenters (13, 28). In a small randomized, double-blind study (N=29), the antipsychotic pimozide was not more efficacious than placebo in augmenting the effect of fluoxetine (37).

Relapse appears to be common after discontinuation of an effective SRI, and longer-term SRI treatment is often needed (13, 28). For patients who appear at high risk for suicide, lifelong SRI treatment is recommended, as suicides have been known to occur after SRI discontinuation.

Cognitive-Behavioral Therapy

Results of preliminary studies of CBT for body dysmorphic disorder are encouraging (13, 27, 29). Most studies have included cognitive strategies as well as behavioral strategies consisting mainly of exposure and response prevention to reduce avoidance (e.g., of social situations) and ritualistic behaviors (e.g., mirror checking). CBT has led to consistently good outcomes in studies of group and individual treatment.

In a randomized study of group treatment, in which 54 women with body dysmorphic disorder were assigned to eight 2-hour group CBT sessions or a waiting list, patients who received CBT had significantly greater improvement in symptoms, self-esteem, and depression than those assigned to the waiting list (38). In another study, 13 adults with body dysmorphic disorder showed significant improvement after group CBT delivered in 12 weekly 90-minute sessions (39). Symptom severity scores decreased from the severe to the moderate range; the authors of the study noted that further improvement might have occurred with a longer treatment.

In a randomized study of individual CBT (N=19), patients who received 12 weekly 1-hour CBT sessions improved significantly more than those assigned to a waiting list (40). In a case series of 17 patients treated with 20 daily 90-minute sessions over 1 month, 12 patients had a 50% or greater reduction in symptom severity (41). In 6 weeks of intensive treatment with thirty 90-minute sessions of exposure and response prevention (without cognitive therapy), symptoms improved significantly and remained stable at 6-month follow-up (42).

Summary and Recommendations

Body dysmorphic disorder is a relatively common disorder that exacts high costs in functioning and quality of life for patients, yet it often goes unrecognized. Because patients usually do not spontaneously reveal their symptoms and often have poor insight about them, clinicians often have to elicit symptoms of the disorder with careful questioning. In making the diagnosis, clinicians must distinguish body dysmorphic disorder from other disorders, such as major depressive disorder, OCD, social phobia, and eating disorders.

Once the diagnosis is made, engaging the patient in treatment can be a challenge. For many patients, poor insight contributes to reluctance to consider psychiatric treatment. Motivational interviewing and psychoeducation about the disorder can be helpful. Treatment with SRIs and CBT often improves symptoms substantially. Below, we conclude the vignette by describing Mr. H's treatment in detail.

Treatment began with psychoeducation about body dysmorphic disorder and its treatment, both in sessions with Mr. H and by recommending reading on the disorder. We noted that people with body dysmorphic disorder see themselves differently than other people do, but we did not focus on Mr. H's appearance or try to talk him out of his view of how he looked. Instead, we focused on his intense suffering, preoccupation, difficulty functioning, and the potential for treatment to improve his life. Mr. H agreed that telling his girlfriend about his body dysmorphic disorder would give him much-needed support and help reduce his feelings of isolation.

During our first meeting, we discussed the options of CBT and medication. No studies have directly compared the efficacy of these treatments or examined whether combined CBT and pharmacotherapy is superior to either treatment alone. Mr. H preferred to start treatment with medication, as he thought this ap-

proach would require less effort and fewer appointments than CBT.

It is unclear whether some SRIs are more efficacious than others, as no head-to-head comparison studies have been done. Mr. H preferred a medication shown to be efficacious in a controlled study, so we chose fluoxetine. Even though Mr. H's appearance beliefs were delusional, we started treatment with SRI monotherapy.

We initially prescribed 20 mg/day. The most tolerable dosing strategy, in our experience, is to start with a low dose and gradually titrate the dose upward while monitoring for side effects. After 2 weeks, we raised his dose to 40 mg/day, and after another 2 weeks, we raised it to 60 mg/day, as Mr. H had shown no signs of improvement and was tolerating the medication well. We used this titration schedule because it appears that many patients require at least 60 mg/day of fluoxetine, and we wanted to avoid a protracted trial. Dose-finding studies have not been conducted, but clinical experience suggests that higher doses are often needed to treat body dysmorphic disorder than are typically used for major depression. Our usual approach is to reach the maximum SRI dose recommended by the manufacturer within 5 to 9 weeks of starting treatment, unless this dose is not tolerated or a lower dose is effective. Patients who have difficulty tolerating side effects or have a robust and early response may benefit from remaining at a lower dose for a longer time to determine whether an additional dose increase seems warranted.

After 6 weeks of treatment, Mr. H began to notice some improvement; he felt less self-conscious, his intrusive thoughts began to diminish, his compulsive behaviors became less frequent and easier to resist, and his insight, referential thinking, depressive symptoms, functioning, and suicidal ideation started to improve. After 8 weeks of treatment, and while taking 60 mg/day, his symptoms had improved by 30% on the Yale-Brown Obsessive Compulsive Scale Modified for Body Dysmorphic Disorder. At that point, we raised the fluoxetine dosage to 80 mg/day, as he was tolerating the medication well and still had symptoms. In our clinical experience, daily doses even higher than 80 mg of fluoxetine or its equivalent

can be used if necessary (except for clomipramine), given these medications' high therapeutic index.

While Mr. H had a clinically meaningful response after 8 weeks, some patients need SRI treatment for as long as 14 weeks, with titration to a relatively high dose, before their symptoms significantly improve. The mean time to SRI response in published studies, in which fairly rapid titration schedules were used, ranges from about 4 to 9 weeks (30, 33–35).

After Mr. H had taken fluoxetine for 14 weeks (6 weeks at 80 mg/day), his score on the modified Yale-Brown scale had decreased by 35% from baseline. While substantially improved, he was still distressed over his appearance and experiencing some functional impairment. We discussed next-step options: further raising his fluoxetine dose, augmenting fluoxetine with another medication, or CBT. Mr. H preferred CBT—by now he was motivated and eager to learn skills to reduce his remaining symptoms. For patients who are not motivated enough to do CBT, motivational interviewing techniques may be helpful. For those who are too severely ill or depressed to participate in CBT, an SRI may improve symptoms to the point where CBT is more feasible.

While continuing fluoxetine at 80 mg/day, we initiated CBT treatment. The treatment followed a treatment manual (26) and consisted of 22 weekly 60-minute sessions. Together, the therapist and Mr. H developed an initial conceptualization of why Mr. H's symptoms might have developed and which thoughts and behaviors maintained them. They discovered, for example, that Mr. H often assumed that other people reacted negatively to him because of his appearance flaws. This made him very anxious and depressed. To avoid these unpleasant feelings, Mr. H engaged in rituals and avoided social situations and sometimes work. This case conceptualization guided the therapy. The therapist provided education about body dysmorphic disorder from a CBT perspective, highlighting how rituals and avoidance behaviors reinforce and maintain body-dysmorphic preoccupations and maladaptive thinking. Mr. H and his therapist identified goals for treatment, which included changing the self-defeating ways in which Mr. H thought about his appearance, decreasing mal-

adaptive behaviors (such as rituals and avoidance of work and social situations), and increasing adaptive behaviors (such as socializing, developing hobbies, and consistently going to work).

Mr. H then learned to identify and modify his self-defeating thoughts. For example, while at work Mr. H had the thought, "That lady looks so upset. She must be noticing how ugly my skin is." His therapist encouraged Mr. H to evaluate the evidence for and against this particular thought. Mr. H learned to write his thoughts in a thought record and to respond to them with a rational response, such as "It's much more likely that the woman was upset because she couldn't find what she was looking for, not because she was disgusted by my skin." Over time, he became skilled at modifying his self-defeating thoughts, which in turn diminished his anxiety, depression, and shame.

Over the course of treatment it became apparent that Mr. H's negative assumptions about how others would respond to him were based on deeper distorted core beliefs—that is, global, overgeneralized ideas about himself or the world. For Mr. H, the core beliefs "I'm unlovable" and "I'm inadequate" seemed to maintain his body-dysmorphic thoughts and behaviors. Later in treatment, cognitive restructuring and other approaches targeted these deeper-level irrational beliefs.

As Mr. H developed proficiency in evaluating and modifying his negative thoughts, his therapist introduced exposure and response (ritual) prevention techniques. Exposure and response prevention were usually combined, and over time Mr. H (guided by his therapist) worked on increasingly more challenging situations. For example, he started by visiting his relatives at home without wearing his hat (exposure) and refraining from going into the bathroom to check his hair and skin in the mirror during their visit (response prevention). As a next step, he worked on not wearing his hat and refraining from mirror checking when going out on a walk with his girlfriend. Later in treatment he completed the same exercise in increasingly crowded social situations (e.g., restaurants, work, and shopping malls). Mr. H also gradually cut down on and eventually stopped his other compulsive behaviors, which included learning

habit reversal to stop his skin picking. Mr. H also learned to design and conduct behavioral experiments to test his body-dysmorphic beliefs (e.g., that people were laughing at him) and to determine whether they were accurate. Behavioral experiments were combined with exposure and cognitive restructuring.

A perceptual retraining exercise helped Mr. H learn to look in the mirror and describe his entire body rather than selectively focusing only on disliked areas. Mr. H learned to refrain from critical self-talk while looking in the mirror and to use more objective descriptions of his appearance—for example, saying, "My eyes are brown" rather than "My hair is ugly and should be thicker." Mr. H was also encouraged not to perform any rituals, such as compulsively checking his appearance or picking his skin, while completing this exercise.

In addition to working on these strategies during his treatment sessions, Mr. H spent 40–60 minutes a day practicing them between sessions.

The two final treatment sessions focused on relapse prevention and prepared Mr. H for the period after treatment ended. For example, unrealistic expectations, such as "I'll never have any body dysmorphic disorder symptoms again," were discussed. He made a coping plan with his therapist that outlined what he should do if symptoms recurred (e.g., restarting thought records and doing exposure, response prevention, and behavioral experiments).

Overall, Mr. H benefited greatly from treatment. After 22 CBT sessions, and while taking 80 mg/day of fluoxetine, his score on the modified Yale-Brown scale was only 6. He spent about 20 minutes a day thinking about his appearance and performing compulsive behaviors. His appearance-related thoughts were more accurate and caused only mild distress. In addition, Mr. H no longer avoided situations or had any impairment in functioning. He went to work regularly, performed his job well, attended family events, and socialized more frequently. His mood, insight, and delusions of reference improved, and he no longer had any suicidal thinking.

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References

- Phillips KA: Body dysmorphic disorder: the distress of imagined ugliness. *Am J Psychiatry* 1991; 148:1138–1149
- Phillips KA, Menard W, Fay C, Weisberg R: Demographic characteristics, phenomenology, comorbidity, and family history in 200 individuals with body dysmorphic disorder. *Psychosomatics* 2005; 46:317–332
- Phillips KA, Diaz S: Gender differences in body dysmorphic disorder. *J Nerv Ment Dis* 1997; 185:570–577
- Phillips KA, Menard W, Fay C, Pagano M: Psychosocial functioning and quality of life in body dysmorphic disorder. *Compr Psychiatry* 2005; 46:254–260
- Perugi G, Akiskal HS, Giannotti D, Frare F, DiVaio S, Cassano GB: Gender-related differences in body dysmorphic disorder (dysmorphophobia). *J Nerv Ment Dis* 1997; 185:578–582
- Didie ER, Walters MM, Pinto A, Menard W, Eisen JL, Mancebo M, Rasmussen SA, Phillips KA: Comparison of quality of life and psychosocial functioning in obsessive-compulsive disorder and body dysmorphic disorder. *Ann Clin Psychiatry* 2007; 19:181–186
- Frare F, Perugi G, Ruffolo G, Toni C: Obsessive-compulsive disorder and body dysmorphic disorder: a comparison of clinical features. *Eur Psychiatry* 2004; 19:292–298
- Veale D, Boocock A, Gournay K, Dryden W, Shah F, Willson R, Walburn J: Body dysmorphic disorder: a survey of fifty cases. *Br J Psychiatry* 1996; 169:196–201
- Phillips KA, Coles M, Menard W, Yen S, Fay C, Weisberg RB: Suicidal ideation and suicide attempts in body dysmorphic disorder. *J Clin Psychiatry* 2005; 66:717–725
- Phillips KA, Menard W: Suicidality in body dysmorphic disorder: a prospective study. *Am J Psychiatry* 2006; 163:1280–1282
- Harris EC, Barraclough B: Suicide as an outcome for mental disorders: a meta-analysis. *Br J Psychiatry* 1997; 170:205–228
- Cotterill JA: Body dysmorphic disorder. *Dermatol Clin* 1996; 14:457–463
- Phillips KA: *The Broken Mirror: Understanding and Treating Body Dysmorphic Disorder*, revised and expanded ed. New York, Oxford University Press, 2005
- Rief W, Buhlmann U, Wilhelm S, Borkenhagen A, Brahler E: The prevalence of body dysmorphic disorder: a population-based survey. *Psychol Med* 2006; 36:877–885
- Koran LM, Abujaoude E, Large MD, Serpe RT: The prevalence of body dysmorphic disorder in the United States adult population. *CNS Spectr* 2008; 13:316–322
- Phillips KA, McElroy SL, Keck PE Jr, Pope HG Jr, Hudson JI: Body dysmorphic disorder: 30 cases of imagined ugliness. *Am J Psychiatry* 1993; 150:302–308
- Grant JE, Kim SW, Crow SJ: Prevalence and clinical features of body dysmorphic disorder in adolescent and adult psychiatric inpatients. *J Clin Psychiatry* 2001; 62:517–522
- Phillips KA, Pagano ME, Menard W, Stout RL: A 12-month follow-up study of the course of body dysmorphic disorder. *Am J Psychiatry* 2006; 163:907–912
- Hollander E, Cohen LS, Simeon D: Body dysmorphic disorder. *Psychiatr Ann* 1993; 23:359–364
- Phillips KA: Psychosis in body dysmorphic disorder. *J Psychiatr Res* 2004; 38:63–72
- Phillips KA, Hollander E, Rasmussen SA, Aronowitz BR, DeCaria C, Goodman WK: A severity rating scale for body dysmorphic disorder: development, reliability, and validity of a modified version of the Yale-Brown Obsessive Compulsive Scale. *Psychopharmacol Bull* 1997; 33:17–22
- Thompson C, Durrani A: An increasing need for early detection of body dysmorphic disorder by all specialties. *J Royal Soc Med* 2007; 100:61–62
- Phillips KA, Pinto A, Menard W, Eisen JL, Mancebo M, Rasmussen SA: Obsessive-compulsive disorder versus body dysmorphic disorder: a comparison study of two possibly related disorders. *Depress Anxiety* 2007; 24:399–409
- Phillips KA, Grant J, Siniscalchi J, Albertini RS: Surgical and non-psychiatric medical treatment of patients with body dysmorphic disorder. *Psychosomatics* 2001; 42:504–510
- Miller WR, Rollnick S: *Motivational Interviewing: Preparing People to Change Addictive Behavior*. New York, Guilford, 1991
- Wilhelm S, Phillips KA, Steketee G: *A Cognitive Behavioral Treatment Manual for Body Dysmorphic Disorder*. New York, Guilford, in press
- National Collaborating Centre for Mental Health: *Obsessive Compulsive Disorder: Core Interventions in the Treatment of Obsessive Compulsive Disorder and Body Dysmorphic Disorder*. National Clinical Practice Guideline Number 31. London, British Psychiatric Society and Royal College of Psychiatrists, 2006
- Phillips KA, Hollander E: Treating body dysmorphic disorder with medication: evidence, misconceptions, and a suggested approach. *Body Image* 2008; 5:13–27
- Neziroglu F, Khemlani-Patel S: A review of cognitive and behavioral treatment for body dysmorphic disorder. *CNS Spectr* 2002; 7:464–471
- Phillips KA, Albertini RS, Rasmussen SA: A randomized placebo-controlled trial of fluoxetine in body dysmorphic disorder. *Arch Gen Psychiatry* 2002; 59:381–388
- Hollander E, Allen A, Kwon J, Aronowitz B, Schmeidler J, Wong C, Simeon D: Clomipramine vs desipramine crossover trial in body dysmorphic disorder: selective efficacy of a serotonin reuptake inhibitor in imagined ugliness. *Arch Gen Psychiatry* 1999; 56:1033–1039
- Perugi G, Giannotti D, Di Vaio S, Frare F, Sacttoni M, Cassano GB: Fluvoxamine in the treatment of body dysmorphic disorder (dysmorphophobia). *Int Clin Psychopharmacol* 1996; 11:247–254

33. Phillips KA, Dwight MM, McElroy SL: Efficacy and safety of fluvoxamine in body dysmorphic disorder. *J Clin Psychiatry* 1998; 59:165–171
34. Phillips KA, Najjar F: An open-label study of citalopram in body dysmorphic disorder. *J Clin Psychiatry* 2003; 64:715–720
35. Phillips KA: An open-label study of escitalopram in body dysmorphic disorder. *Int Clin Psychopharmacol* 2006; 21:177–179
36. Allen A, Hadley SJ, Kaplan A, Simeon D, Friedberg J, Priday L, Baker BR, Greenberg JL, Hollander E: An open-label trial of venlafaxine in body dysmorphic disorder. *CNS Spectr* 2008; 13: 138–144
37. Phillips KA: Placebo-controlled study of pimozide augmentation of fluoxetine in body dysmorphic disorder. *Am J Psychiatry* 2005; 162:377–379
38. Rosen JC, Reiter J, Orosan P: Cognitive-behavioral body image therapy for body dysmorphic disorder. *J Consult Clin Psychol* 1995; 63:263–269
39. Wilhelm S, Otto MW, Lohr B, Deckersbach T: Cognitive behavior group therapy for body dysmorphic disorder: a case series. *Behav Res Ther* 1999; 37:71–75
40. Veale D, Gournay K, Dryden W, Boocock A, Shah F, Willson R, Walburn J: Body dysmorphic disorder: a cognitive behavioural model and pilot randomised controlled trial. *Behav Res Ther* 1996; 34:717–729
41. Neziroglu F, McKay D, Todaro J, Yaryura-Tobias JA: Effect of cognitive behavior therapy on persons with body dysmorphic disorder and comorbid axis II diagnoses. *Behav Ther* 1996; 27: 67–77
42. McKay D, Todaro J, Neziroglu F, Campisi T, Moritz EK, Yaryura-Tobias JA: Body dysmorphic disorder: a preliminary evaluation of treatment and maintenance using exposure with response prevention. *Behav Res Ther* 1997; 35:67–70