Comorbid Social Anxiety and Body Dysmorphic Disorder: Managing the Complicated Patient

Eric Hollander, M.D., and Bonnie R. Aronowitz, Ph.D.

Patients with body dysmorphic disorder (BDD) have an obsessive preoccupation with an imagined defect in appearance or, if a slight physical abnormality exists, a grossly excessive concern with it. This preoccupation causes significant distress or impairment of social, occupational, or other functioning. Social anxiety is a prominent component of BDD, and social avoidance resulting from BDD symptoms may markedly impair social functioning. In severe cases, avoidance of social situations in combination with occupational and academic impairment may result in patients becoming housebound. The prevalence of BDD is 1% to 2% in the U.S. population and 11% to 12% in patients with social anxiety disorder. Behaviors associated with BDD include mirror checking, physician visits, hair grooming, use of cosmetics, and social avoidance. Distress over BDD may lead patients to undergo repeated cosmetic surgeries in futile attempts to conceal or correct perceived defects. Additionally, depression and suicide are frequent complications of BDD. Pharmacologic and nonpharmacologic treatments for the management of BDD with coexisting social anxiety are presented in this article. *(J Clin Psychiatry 1999;60[suppl 9]:27–31)*

Body dysmorphic disorder (BDD) has been termed "the distress of imagined ugliness."[1] The American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (DSM-IV) characterizes BDD as a preoccupation with an imagined defect or defects in appearance that causes significant distress or impairment in social, occupational, or other functioning.[2] The DSM-IV stipulates that this preoccupation is not better accounted for by another mental disorder such as anorexia nervosa.

Areas of perceived defect in BDD typically include the body in general or head, face, sexual body parts, arms and legs, skin, and body odor (Figure 1). The behavioral profile of BDD includes social avoidance, multiple dermatologic and cosmetic surgeries, mirror checking, multiple physician visits, hair grooming, and excessive application of cosmetics. In addition, patients with BDD may engage in compulsive rituals to conceal their perceived defects.

From the Department of Psychiatry, The Mount Sinai School of Medicine, New York, N.Y.

Supported in part by grant FD-R-000941-01 from the Food and Drug Administration and by the Seaver Foundation, New York, N.Y.

Presented at the symposium "New Frontiers in the Management of Social Anxiety Disorder: Diagnosis, Treatment, and Clinical Course." This symposium was held in conjunction with the 151st Annual Meeting of the American Psychiatric Association, May 31, 1998, Toronto, Ontario, Canada, and supported by an educational grant from SmithKline Beecham Pharmaceuticals.

Reprint requests to: Eric Hollander, M.D., Department of Psychiatry, Box 1230, The Mount Sinai School of Medicine, 1 Gustave L. Levy Place, New York, NY 10029 (e-mail: e_hollander@smtplink.mssm.edu).

Diagnostic probes for the assessment of BDD include ascertainment of the content and degree of preoccupation with appearance, level of distress about perceived defects, resultant functional impairment, and consideration of cosmetic surgery or other procedures to change appearance (Table 1). In addition, comorbidity with other Axis I anxiety and mood disorders should be determined (Figure 2).

COSMETIC SURGERY AND BDD

The existence of functional impairment is a DSM-IV requirement for the diagnosis of BDD, and this distinguishes a somewhat excessive concern with physical appearance common in the population[3] from the clearly dysfunctional preoccupation present in BDD. Although cosmetic surgery applicants may share certain characteristics with BDD patients, important differences exist between the 2 populations.

Cosmetic surgery applicants demonstrate significantly less preoccupation with their defect than BDD patients, who may be obsessively preoccupied 24 hours a day. Thus, BDD patients are more likely to have comorbid social anxiety disorder and depression secondary to their preoccupation with appearance compared with cosmetic surgery applicants. In addition, cosmetic surgery applicants tend to be dissatisfied with a specific body part, whereas BDD patients tend to shift the focus of their dissatisfaction over time and develop new preoccupations. Moreover, cosmetic surgery applicants have no functional impairment because of their concern over a particular body part, whereas BDD patients have significant impairment in social, occupational, and academic functioning (Table 2).[4]

Figure 1. Areas of Perceived Physical Defect in Patients With Body Dysmorphic Disorder

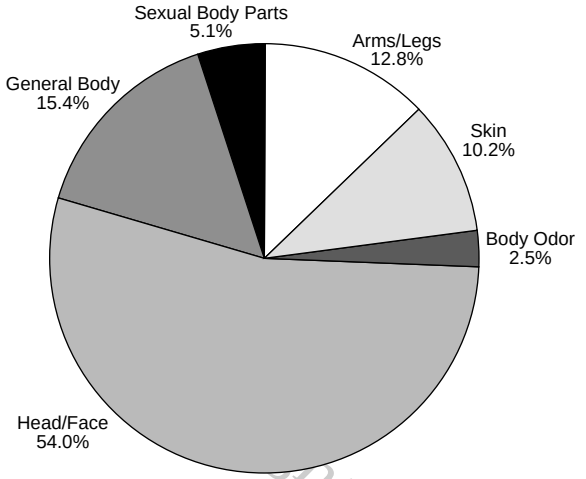
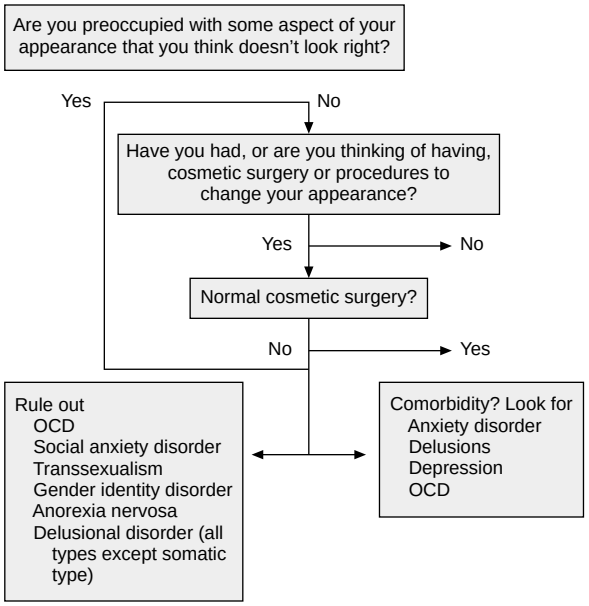


Table 1. Diagnostic Probes for Body Dysmorphic Disorder

Have you ever been very worried about your appearance in any way? If yes, what was your concern?
Did you think (body part) was especially unattractive?
How do you feel about the appearance of your face, skin, hair, nose, or the shape or size or other aspect of any other body part?
Were you preoccupied with this concern? Did you think about it a lot and wish you could worry about it less?
What effect has this preoccupation with your appearance had on your life?
Has it caused you a lot of distress or significantly interfered with your social life, school achievement, work, or other activities?
Has your concern had any effect on your family or friends?

Figure 2. Diagnostic Flowchart for Body Dysmorphic Disorder[a]



[a]Abbreviation: OCD = obsessive-compulsive disorder.

In cosmetic surgery applicants, there is good concordance between the plastic surgeon and patient about the perceived defect, whereas BDD patients have concerns grossly disproportionate to their actual defects. Poor concordance between patient and plastic surgeon about the existence or degree of the perceived defect inevitably contributes to poor surgical outcome. BDD patients are thus at greater risk for poor surgical outcome in comparison with cosmetic surgery applicants. Poor outcomes in BDD include a perception of being damaged by surgery and may lead to lawsuits or threats against or actual homicide of the plastic surgeon by the patient or someone close to the patient.

PSYCHOTIC VERSUS NONPSYCHOTIC BDD

Patients with BDD demonstrate excessive concern over slight physical anomalies; this overvalued ideation or delusional conviction about perceived defects was found in 48.7% of BDD patients.[5] However, when the psychotic or delusional subtype of BDD was compared with the nonpsychotic subtype, there were no differences in demographics, phenomenology, course of illness and outcome, associated features, comorbid Axis I disorders, familial psychiatric history, or treatment response. These findings support the fact that BDD includes a psychotic subtype rather than that the delusional form warrants classification as a separate disorder.

Muscle dysmorphia, or bigorexia, in men has been termed a delusional form of BDD (E.H. unpublished data, 1998, and reference 6). Patients with muscle dysmorphia are preoccupied with muscularity and obsessed with their body size being too small or insufficiently lean. Compulsive behavior includes engaging in continuous exercise to the point of being "gym rats," weight lifting even following physical injury such as shoulder dislocation, and use of anabolic steroids to "bulk up." However, it is likely that muscle dysmorphia is responsive to selective serotonin reuptake inhibitors (SSRIs).[7]

SOCIAL ANXIETY DISORDER

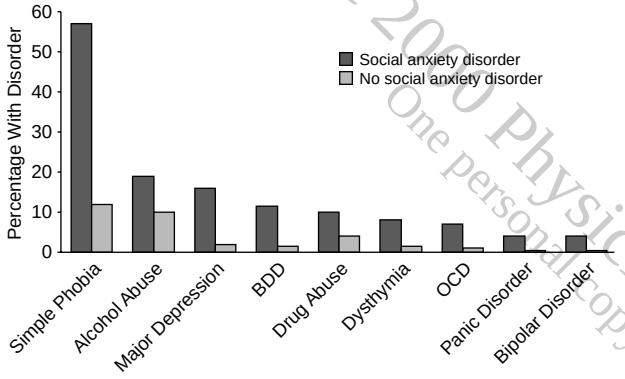
The DSM-IV characterizes social anxiety disorder as a persistent fear of social or performance situations during which the individual is exposed to possible scrutiny. In individuals under the age of 18 years, symptoms must persist for at least 6 months.[2] The focus of fear is humiliation and embarrassment in social situations. Exposure to social situations often is associated with extreme anxiety, including panic symptomatology.[2] Although the patient acknowledges that the fear is unreasonable or disproportionate to the situation, feared social situations are typically avoided. This avoidance or endurance with marked dis-

Table 2. Multivariate Analysis of Variance[a] for Survey Questions Related to BDD Diagnostic Criteria: Plastic Surgery Applicants Versus BDD Patients[b]

	BDD Subjects (N = 17)		Cosmetic Surgery Applicants (N = 98)		Medical Plastic Surgery Applicants (N = 27)		Universal F Tests Significance	Scheffé Paired
Question	Mean	SD	Mean	SD	Mean	SD	Levels	Contrasts[c]
Have physical defect	0.94	0.24	0.72	0.45	0.54	0.51	.014	+
Preoccupied > 1 h per day	0.94	0.24	0.65	0.48	0.65	0.48	.005	+
Others disagree about defect	3.2	1.2	2.5	1.5	2.0	1.6	.015	+
Functional impairment	3.9	1.0	3.3	1.6	2.2	2.7	.000	+, ++
Number of perceived bodily defects	6.2	5.0	2.4	2.1	1.4	1.4	.000	+, +++

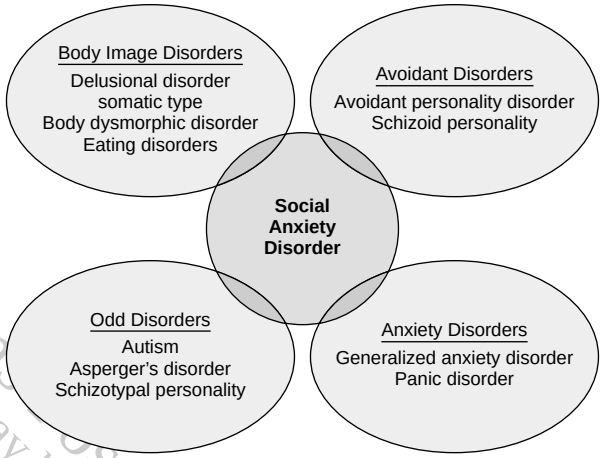
[a]Wilks lambda = 0.84; df = 12.1256, p = .024.
[b]Abbreviation: BDD = body dysmorphic disorder.
[c]Scheffé paired contrasts significant at p < .05: + = BDD vs. medical surgery, ++ = medical vs. cosmetic surgery, +++ = BDD vs. cosmetic surgery.

Figure 3. Psychiatric Comorbidity in Patients With and Without Social Anxiety Disorder[a]



[a]Data from references 5, 9, and 11.

Figure 4. Proposed Social Anxiety/Deficit Spectrum



tress results in impairment in occupational, marital, and social functioning. In social anxiety disorder, the most frequently reported feared social situations are public speaking, approaching strangers, and eating in public.[8,9] Associated features of social anxiety disorder include hypersensitivity to criticism, negative evaluation, difficulty in asserting oneself in social situations, and low self-esteem. Patients with social anxiety disorder often maintain poor eye contact and exhibit signs of intense anxiety such as cold, clammy hands, tremor, and a shaky voice.

Social anxiety disorder is recognized as a highly prevalent and often disabling mental disorder of early onset and chronic course.[9] Reports of the Epidemiologic Catchment Area (ECA) study completed in 1980 found a lifetime prevalence of social anxiety disorder of 2.4% in the general population.[9] More recently, the National Comorbidity Survey (NCS), a congressionally mandated survey to study the comorbidity of substance use and psychiatric disorders in the United States, reported social anxiety disorder to be the third most prevalent psychiatric disorder, with an estimate of 13.3% lifetime prevalence.[10]

BDD AND SOCIAL ANXIETY

The prevalence of BDD is 1% to 2% of the U.S. population. Of note, the prevalence of BDD is 11% to 12% in patients with social anxiety disorder compared with approximately 1% in patients without social anxiety disorder.[11,12] Social anxiety disorder has high comorbidity with other psychiatric disorders, including simple phobia, alcohol and other substance abuse, major depression, BDD, dysthymia, panic disorder, and bipolar disorder (Figure 3). Of note, BDD is the fourth most common comorbid disorder with social anxiety disorder.

A social anxiety/social deficit spectrum has been proposed (E.H. unpublished data, 1998) (Figure 4). Social anxiety disorder overlaps with generalized anxiety disorder, panic disorder, avoidant personality disorder-schizoid personality disorder, delusional disorder (somatic type), BDD, and eating disorders. In addition, there is overlap of social anxiety disorder with "odd disorders" such as autism, Asperger's disorder, and schizotypal personality disorder.

TREATMENT

Cognitive-Behavioral Treatment

Risk factors for developing a body image problem include early traumatic incidents such as being teased or humiliated about physical appearance or being the victim of physical or sexual assault. These experiences may trigger dysfunctional assumptions about normal physical appearance and have implications for acceptance and self-esteem. Patients then rehearse negative, distorted self-statements regarding physical appearance to the extent that these statements become automatic and credible. Avoidance prevents patients from habituation to the sight of their appearance, particularly in social situations in which there is the possibility of scrutiny. Checking may provide immediate relief, but is a poor long-term solution since it maintains the attentional focus on aspects of appearance that elicit anxiety.

Cognitive and behavioral treatments are effective for BDD patients. Initial psychoeducation includes delineation of the influence of societal emphasis on physical appearance and identification of psychological vulnerabilities or trauma that may serve as predisposing factors to BDD. Cognitive restructuring, which includes blocking habitual negative self-statements and substituting them with objective, neutral descriptions, assists BDD patients in the identification of personal attitudes that perpetuate their preoccupation with appearance. A key behavioral technique employed in the treatment of BDD and social anxiety disorder includes graded exposure to feared situations with systematic desensitization in accordance with a hierarchy from least to most feared situations. Graded exposure permits patients to reenter social situations with less anxiety. The aim of response prevention following exposure to feared social situations is for patients to control compulsive behaviors arising from anxiety symptoms. An example of exposure would be having a patient who typically avoids mirrors to actually look in the mirror. An example of response prevention would be for this patient, during exposure to the mirror, to suppress the typical responses of checking, scrutinizing, and grooming.[13]

Cognitive and behavioral treatments are not always successful. Possible reasons for failure of behavioral therapy include poorly executed treatment, patient or family noncompliance, comorbid conditions such as severe depression and schizotypal personality disorder, and very severe social anxiety and BDD symptoms. In addition, poor insight, which is found in 50% of BDD patients, may interfere with the execution of exposure and response prevention.

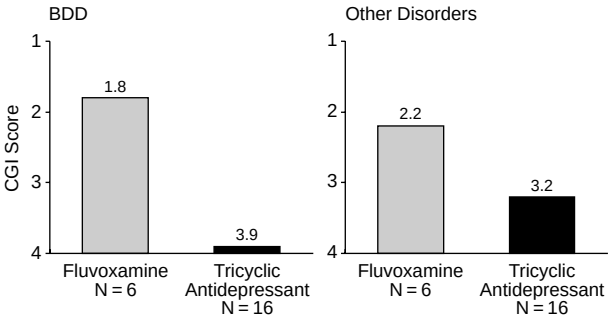
Pharmacologic Treatment

Patients with BDD have a selective response to serotonin reuptake inhibitors.[14] For example, patients do not respond to the norepinephrine reuptake inhibitor desipramine, but significantly improve with clomipramine or the SSRIs. A small study compared fluvoxamine with tricyclic antidepressants (TCAs) in the treatment of BDD.[15] The treating clinician assigned a score on the Clinical Global Impressions scale for improvement from baseline (CGI-I), with 1 equaling very much improved, 4 equaling no change, and 7 equaling very much worse. Patients treated with fluvoxamine (N = 6) were rated as much improved with a CGI-I score of 1.8; patients treated with TCAs (N = 16) were rated as unchanged with a CGI-I score of 3.9 (Figure 5). In addition to improvement in obsessive preoccupation and urge for cosmetic surgery, social anxiety also markedly improved during SSRI treatment.

To confirm the selective efficacy of serotonin reuptake inhibitors compared with norepinephrine reuptake inhibitors in BDD, a crossover trial was conducted comparing clomipramine with desipramine in 40 BDD subjects (E.H.; E. Hollander, M.D.; A. Allen, Ph.D.; et al. unpublished data, 1998). BDD subjects were significantly improved while taking clomipramine compared with those taking desipramine on the BDD modification of the Yale-Brown Obsessive Compulsive Scale (BDD-YBOCS).[16] There were also significant improvements in scores on social anxiety scales such as the Schneier Disability Profile.[17] Overall social impairment and, specifically, friendships, marriage, and dating were also significantly improved on clomipramine therapy compared with desipramine therapy (Figure 6).

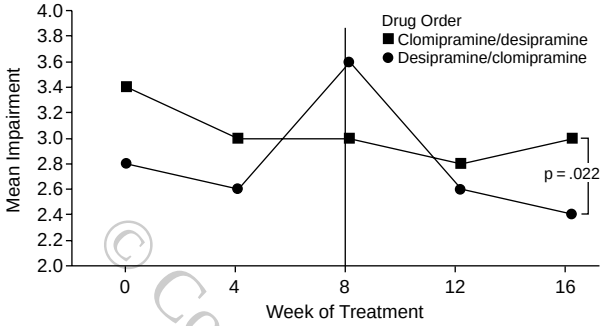
In patients with BDD, initial treatment with SSRIs and behavior therapy is recommended (Figure 7). If patients have a good response, this treatment should be continued for at least 1 year. If patients have a poor response because of psychiatric comorbidity, augmentation with another pharmacologic agent is advised. With continued poor response, switching to a different SSRI or alternative treatment is recommended. Patients with marked social anxiety, which is either comorbid with BDD or secondary to BDD, may benefit from similar therapeutic interventions.

Figure 5. Response to Fluvoxamine or Tricyclic Antidepressant in Patients With BDD or Other Psychiatric Disorders[a]



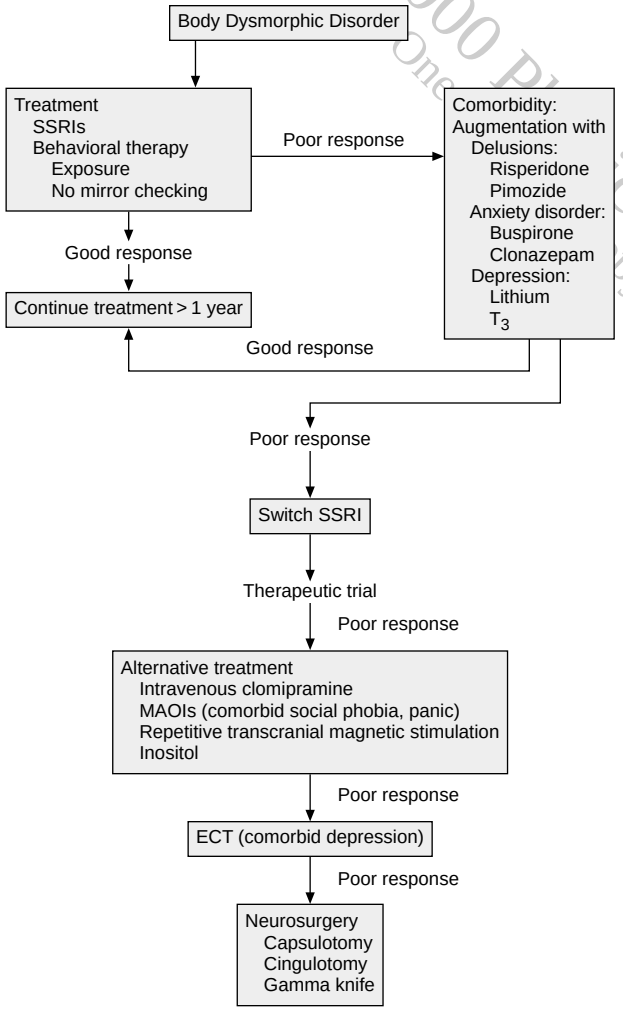
[a]Data from reference 15. Abbreviations: CGI = Clinical Global Impressions scale: 1 = very much improved, 4 = unchanged.

Figure 6. Impairment in Patients With BDD as Measured by the Schneier Disability Profile Marriage/Dating Impairment[a]



[a]Data from E.H.; E. Hollander, M.D.; J. Kwon; et al. unpublished data, 1998. Scale: 0 = no impairment, 4 = severe impairment.

Figure 7. Treatment Algorithm for Patients With Body Dysmorphic Disorder[a]



[a]Abbreviations: ECT = electroconvulsive therapy, MAOI = monoamine oxidase inhibitor, SSRI = selective serotonin reuptake inhibitor, T_3 = liothyronine sodium.

CONCLUSION

Body dysmorphic disorder and associated social anxiety can cause significant distress and adversely affect social, occupational, or other functioning. Cognitive-behavioral therapy and pharmacologic treatment or the combination can aid in the alleviation of symptoms of BDD. A decrease in the symptoms of BDD tends to decrease social anxiety. In turn, a decrease in social anxiety aids in the alleviation of BDD symptomatology. Even moderate alleviation of such symptoms can have a marked effect on a patient's level of functioning and quality of life.

Drug names: buspirone (BuSpar), clomipramine (Anafranil), clonazepam (Klonopin), desipramine (Norpramin and others), fluvoxamine (Luvox), liothyronine (Cytomel), pimozide (Orap), risperidone (Risperdal).

REFERENCES

1. Phillips KA. Body dysmorphic disorder: the distress of imagined ugliness. Am J Psychiatry 1991;148:1138–1149
2. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition. Washington, DC: American Psychiatric Association; 1994
3. Fitts SN, Gibson P, Redding CA, et al. Body dysmorphic disorder: implications for its validity as a DSM-III-R clinical syndrome. Psychol Rep 1989;64:655–658
4. Aronowitz BR, Simeon D, Hollander E, et al. A survey of body dysmorphic disorder in plastic surgery applicants. Presented at the Society for Biological Psychiatry 50th Annual Scientific Convention and Program; May 1995; Miami, Fla
5. Simeon D, Hollander E, Stein DJ, et al. Body dysmorphic disorder in the DSM-IV field trial for obsessive-compulsive disorder. Am J Psychiatry 1995;152:1207–1209
6. Pope HG, Gruber Choi P, Olivardia R, et al. Muscle dysmorphia: an underrecognized form of body dysmorphic disorder. Psychosomatics 1997;38:548–557
7. Gruber A, Pope HG. Muscle dysmorphia: a new manifestation of OCD? OCD Newsletter 1998;12:1,7
8. Liebowitz MR, Gorman JM, Fyer AJ, et al. Social anxiety disorder: review of a neglected anxiety disorder. Arch Gen Psychiatry 1985;42:729–736
9. Schneier FR, Johnson J, Hornig CD, et al. Social anxiety disorder comorbidity and morbidity in an epidemiologic sample. Arch Gen Psychiatry 1992;49:282–288
10. Kessler RC, McGonagle KA, Zhao S, et al. Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States: results from the National Comorbidity Survey. Arch Gen Psychiatry 1994;51:8–19
11. Brawman-Mintzer O, Lydiard RB, Phillips KA, et al. Body dysmorphic disorder in patients with anxiety disorders and major depression: a comorbidity study. Am J Psychiatry 1995;152:1665–1667
12. Wilhelm S, Otto MW, Zucker BG, et al. Prevalence of body dysmorphic disorder in patients with anxiety disorders. J Anxiety Disord 1997;11:499–502
13. Rich N, Rosen JC, Orosan T, et al. Prevalence of body dysmorphic disorder in nonclinical populations. Presented at the American Association of Behavioral Therapy; November 1992; Boston, Mass
14. Hollander E, Liebowitz MR, Winchel R, et al. Treatment of body dysmorphic disorder with serotonin reuptake blockers. Am J Psychiatry 1989;146:768–770
15. Hollander E, Cohen L, Simeon D, et al. Fluvoxamine treatment of body dysmorphic disorder [letter]. J Clin Psychopharmacol 1994;14:75–77
16. Phillips KA, Hollander E, Rasmussen SA, et al. 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
17. Schneier FR, Heckelman LR, Garfinkel R, et al. Functional impairment in social phobia. J Clin Psychiatry 1994;55:322–331