EDITOR'S NOTE

The Psychiatric Consultation Service at Massachusetts General Hospital sees medical and surgical inpatients with comorbid psychiatric symptoms and conditions. Such consultations require the integration of medical and psychiatric knowledge. During their twice-weekly rounds, Dr Stern and other members of the Consultation Service discuss the diagnosis and management of conditions confronted. These discussions have given rise to rounds reports that will prove useful for clinicians practicing at the interface of medicine and psychiatry.

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Dr Stern is an employee of the Academy of Psychosomatic Medicine; has served on the speaker's board of Reed Elsevier; is a stock shareholder in WiFiMD (Tablet PC); and has received royalties from Mosby/Elsevier and McGraw Hill. **Dr Bolton** and **Ms Lobben** report no financial or other affiliations relevant to the subject of this article.

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The Impact of Body Image on Patient Care

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Have you ever wondered how one's sense of self interacts with disease processes and conditions? Have you thought about how body image, self-esteem, and quality of life impact function? If you have, then the following vignette and discussion may serve as a stimulus to look at the concept of body image and how it impacts the comprehensive care of your patients.

CASE VIGNETTE

As a child, Mr A was a healthy, social, interactive, and playful boy until, at age 5 years, he was hit by a runaway car. The accident led to a hospitalization for a clavicular fracture and facial trauma that resulted in a disfiguring scar on his right cheek.

This scar led to teasing by his kindergarten classmates; he was nicknamed "scarface." As Mr A progressed through childhood and adolescence, he became quite shy and withdrawn; this prompted school teachers to place him in "special" classes. Although he never saw a mental health professional (eg, a psychologist, social worker, or psychiatrist), it was readily apparent that his shyness was exacerbated by interactions with his peers and that he coped by withdrawing from social situations.

Although his scar became less visible as he aged, his shyness persisted. Even as a young man, he was very uncomfortable having his picture taken or looking at his reflection. When someone stared at him, he felt that he was being ridiculed. However, if the looks and stares were accompanied by flattery, his discomfort would diminish.

As an adult, Mr A was hospitalized for assessment of shortness of breath; there, he was the subject of morning rounds. Having all eyes focused on him made Mr A feel self-conscious and criticized and he became less open in his responses and less willing to volunteer information that may have been helpful to his care. Despite a successful professional and personal life, his body image as an adult reflected his early response to trauma and disfigurement.

WHAT IS BODY IMAGE?

Body image involves perceptions, thoughts, and behaviors related to one's appearance. For example, Mr A's body image was dominated by having been a child with a scarred face. When a patient's world view or body image adversely impacts the provision of health care, primary care physicians should place such views in perspective and adjust care plans. Mr A's discomfort during rounds (manifest by terse responses) led to a strategy that eased his dysphoria (eg, by commenting positively on his appearance, for example, "You're looking good today, how do you feel?"). Such insight and action might have enabled Mr A to be more forthcoming and helpful to his caregivers. In this way, knowledge of body image can affect care.

Body image must be differentiated from "self-esteem" and "quality of life," as these latter 2 concepts encompass not only appearance but also one's

Table 1. Assessment of the Attitudinal Component of Body Image in Children[a]

Author (Year)	Test	Description	Test-Retest Reliability	Standardization Sample
Collins (1991)[5]	None	7 male and 7 female figure drawings	3 d: self = 0.71 Ideal/self = 0.59 Ideal/other child = 0.38	1,118 preadolescent children
Childress et al (1993)[6]	Kids' Eating Disorders Survey	8 male and 8 female figure drawings	4 mo: 0.83 for entire survey; not given for figures only	3,178 children, grades 5–8
Veron-Guidry & Williamson (1996)[7]	Body Image Assessment-Children	2 scales; 9 silhouettes of male and female children and preadolescents	Immediate: current = 0.94; ideal = 0.93 1 wk: current = 0.79; current/ideal = 0.67	22 boys and girls aged 8–10 y; 40 boys and girls aged 8–10 y
Sands et al (1997)[8]	Body Image Scale	7 side profiles of prepubescent boys and girls	3 mo: current = 0.56 6 mo: current = 0.40	26 girls and 35 boys aged 10–12 y
Tiggemann & Pennington (1990)[9]	None	9 figure drawings of children and adolescents	Not given	34 girls and 37 boys aged 9–10 y

[a]Reprinted with permission from Cash and Pruzinsky.[4]

relationships, religious views, culture, career, and values. However, body image often influences both self-esteem and quality of life. Nonetheless, changes in body image do not always reflect changes in self-esteem and quality of life, and our vignette demonstrates that positive self-esteem and a good quality of life do not necessarily imply a positive body image.[1] Despite the fact that Mr A overcame his shyness as an adult, his core identity and body image failed to change over time.

WHEN IS BODY IMAGE ESTABLISHED?

Typically, body image is established before the age of 6 years. By this age, children are aware of their own appearance and of the societal bias against people with certain body types (eg, obesity),[2] and children who are overweight tend to internalize this message. During early adolescence, body image continues to develop, especially among girls (when they gain an average of 50 lb, 20%–30% of which is comprised of fat deposited in the hips, thighs, buttocks, and waist).[3]

In addition to biologic developmental processes, external factors (eg, trauma, cultural influences, exposure to the media, relationships, and life experiences) affect body image. In the case of Mr A, his body image was affected by teasing he experienced following disfigurement. Although during his adolescence and adulthood he was not referred to by his childhood nickname, his body image (of a scarred person) persisted, despite educational and professional successes. Attention paid to body image can affect the delivery of care.

HOW IS BODY IMAGE ASSESSED?

At times, simply asking a person about his or her world view (eg, optimistic, pessimistic, confident, insecure, attractive, or unappealing) will start the dialogue between physician and patient regarding body image. For example, a late-developing teenaged boy may feel like a short person even though by the end of college he has grown to a height of 6 ft 8 in. Or, a chronically overweight child still feels "fat" and unattractive despite development of a sculpted body during high school. Fortunately, a variety of quantifiable measures are available for the assessment of body image in children, adolescents, and adults. Each age group requires a different measure, as each faces different developmental tasks. Table 1 provides a list of measurements related to body image in children.[4–9]

The most commonly measured attitudinal component of body image is dissatisfaction with body size[4]; human figure drawings have been particularly helpful for such assessments (especially in those who lack sophisticated language skills). Silhouettes that represent the body (from being very underweight to very overweight) have also been employed. In these tests, individuals are asked to select the figure that represents their current size and the size they would like to be.[4]

Assessment of attitudes must be contrasted with dissatisfaction with appearance; tools for measurement of these factors are listed in Table 2.[4,10–14] Dissatisfaction with appearance reflects values, eg, how much satisfaction or dissatisfaction exists.

Unfortunately, some of the measures listed in Table 2 are global, whereas others are specifically related to dissatisfaction with different parts of the body; optimal assessment of body image should include both global and specific measures. In a medical context, a patient's affect, behavior, and cognition are often oversimplified; at times, a more thorough assessment of body image is needed.

Table 3 provides measures of body satisfaction.[4,15–34] Some activities and concerns (eg, sexual activity, peer pressure, and fashion) are more important for adolescents and adults than for children. When social interactions or adherence with care are less than optimal, assessment of body image may improve doctor-patient communications and patient behaviors.

Body image measurement requires that the term *satisfaction* be further broken down into

Table 2. Appearance Dissatisfaction in Children[a]

Author (Year)	Questionnaire	Description	Reliability	Standardization Sample
Garner (1991)[10]	Eating Disorder Inventory Body Dissatisfaction Scale	9-item subscale assesses feelings about satisfaction with body size; items are 6-point forced choice; reading level is for grade 5	IC: females = 0.91; males = 0.72	109 boys and girls aged 8–10 y
Garner (1991)[10]	Eating Disorder Inventory for Children Body Dissatisfaction Scale	9-item subscale assesses feelings about satisfaction with body size; reading level is for grades 1–2	No data	None
Mendelson & White (1982)[11]	Body Esteem Scale	Participants report their degree of agreement with various statements about their bodies	IC: split half reliability = 0.85	97 boys and girls aged 8.5–17.4 y
Thelen et al (1992)[12]	Body Image and Eating Questionnaire	14 items focusing on overweight concerns, dieting, and restraint; items assessed by 4- or 5-point Likert scale or yes-no format	IC: all values > 0.68	191 children aged 7.8–13.6 y
Mintz & Betz (1986)[13]	Body-Cathexis Scale	Participants rate satisfaction with 15 body characteristics or parts using a response scale ranging from 1 (extremely satisfied) to 7 (extremely dissatisfied)	No data	170 girls aged 8.1–15.5 y
Shisslak et al (1999)[14]	McKnight Risk Factor Survey III	5-item subscale that assesses concern with body weight and shape	IC: grades 4 and 5 = 0.82 TR: grades 4 and 5 = 0.79	103 girls, grades 4 and 5

[a]Reprinted with permission from Cash and Pruzinsky.[4]
Abbreviations: IC = internal consistency, TR = test-retest.

satisfaction (eg, with weight, shape, and specific body areas) as well as severity (eg, of the body image disturbance); measurement should be multimodal.

WHY IS IT IMPORTANT TO KNOW ABOUT A PATIENT'S BODY IMAGE?

A patient's response to illness can be affected by many variables (including how he or she looks, behaves [eg, withdrawn, noncompliant, aggressive, or retaliatory], and thinks). Changes in physical appearance, function, and body integrity are typically central to the experience of illness and to medical treatment. Unfortunately, dissatisfaction with body image has become more prevalent since the early 1970s,[4] possibly due to an increase in the influence of the media.

HOW CAN A PHYSICIAN ASSESS AND MANAGE CHANGES IN BODY IMAGE?

Several decades ago, Kahana and Bibring[35] embarked on development of a strategy to help physicians manage patients with different reactions to medical illness (Table 4). They advised that under stress, patients tend to exaggerate the behaviors linked with their personality style; knowledge of prototypical reactions can be used in connection with body image to deliver more comprehensive care.[35]

Additional tools, eg, the patient's health-related quality of life index can be maximized when one distinguishes between a patient who does and does not have a body image concern.[4,36,37] Individual differences also play a role, as not all patients with a specific condition manifest the same body image. Table 5 lists categories of diseases (organized by organ system) that commonly produce disturbances in body image.

In addition to the diseases listed in Table 5, other conditions (eg, trauma, cancer, infection, and aging) affect health and body image. Each has the capacity to change appearance and bodily integrity and therefore body image. These changes also affect how others treat the afflicted person, and this is often a significant source of distress.

Appearance-related distress occurs not only because of a change of appearance but also because it is a persistent reminder of the disease (especially when changes in appearance are accompanied by functional changes [eg, loss of function or changes in bowel habits]). The speed with which these changes occur can also be a factor, as it affects accommodation to the change. Some conditions will be accompanied by changes in sensory perceptions (eg, phantom limb sensations and pain).

Conditions that are highly visible to strangers (eg, loss of an eye, loss of a limb, and facial scars) cause more distress than those that are hidden. External devices (eg, ileostomy bags, tracheostomy tubes, and prosthetic devices) can also cause body image distress and affect the patient's overall feeling about appearance. Drugs (eg, chemotherapy, antipsychotics, and steroids) can also cause changes in appearance that may be more disturbing to a patient than their more commonly known side effects (eg, nausea and fatigue). Therefore, physicians should learn how to identify and manage reactions to these effects. For example, when children with cancer perceive their physical appearance more

Table 3. Measures of Body Satisfaction and Related Concepts in Adolescents and Adults[a]

Instrument	Author (year)	Description	Reliability	Standardization Sample
Global satisfaction measures: figural ratings				
Body Image Assessment	Williamson et al (1989)[15]	IC: not applicable	TR: immediately to 8 wk (0.60–0.93); bulimics: ideal (0.74), current (0.83); obese: ideal (not significant), current (0.88); binge eaters: ideal (0.65), current (0.81) IC: NA	659 females, including bulimic, binge-eater, anorexic, normal, obese, and atypical eating–disordered subjects
Figure Rating Scale	Stunkard et al (1983)[16] Thompson & Altabe (1991)[17]	Select from 9 figures that vary in size from underweight to overweight	TR: 2 wk; ideal: males (0.82), females (0.71); self-think: males (0.92), females (0.89); self-feel: males (0.81), females (0.83)	125 males, 204 females
Contour Drawing Rating Scale	Thompson & Gray (1995)[18]	Nine male and 9 female schematic figures ranging from underweight to overweight	IC: NA TR: 1 wk (0.79)	40 male and female undergraduates
Somatomorphic Matrix	Pope et al (2000)[19]	Computerized: choose from 100 figures that vary on 2 axes: % body fat and muscularity	IC: NA TR: none given	200 undergraduate college men
Global satisfaction measures: questionnaires				
Body Esteem Scale	Franzoi & Shields (1984)[20]	Modification of body cathexis scale with 16 new items; factor analysis yielded 3 factors for male and female samples	IC: females (0.78–0.87), males (0.81–0.86) TR: none given	366 female and 257 male undergraduates
Body Esteem Scale for Adolescents and Adults	Mendelson et al (2001)[21]	23 Likert-type items on 3 subscales: attribution, appearance, weight	IC: appearance (0.92), attribution (0.81), weight (0.94) TR: 3 mo; attribution (0.83), appearance (0.89), and weight (0.92)	IC: 1,308 (appearance), 1,283 (attribution), and 1,312 (weight), aged 12–25 y TR: 95 junior college students
Body Satisfaction Scale	Slade et al (1990)[22]	Indicate degree of satisfaction with 16 parts (3 subscales: general, head, and body)	IC: range, 0.79–0.89 TR: none given	Females: undergraduates, nursing students, volunteers, overweight subjects, anorexic subjects, and bulimic subjects
Body Shape Questionnaire	Cooper et al (1987)[23]	34 items regarding concerns about one's body shape	IC: none given TR: none given	Bulimic subjects, several control samples
Eating Disorder Inventory-Body Satisfaction Scale	Garner et al (1983)[24] Shore & Porter (1990)[25] Wood et al (1996)[26]	Rated degree of agreement with 9 statements about body parts being large (7 items)	IC: anorexic participants (0.90), controls (0.91) IC: adolescents (11–18), female (0.91), male (0.86) IC: children (8–10, girls (0.84), boys (0.72)	113 female anorexic subjects, 577 female controls 195 boys, 414 girls 109 boys, 95 girls
Multidimensional Body Self-Relations Questionnaire-Appearance Scales	Brown et al (1990)[27]	Appearance evaluation: overall appearance evaluation Appearance orientation: cognitive-behavioral investment in appearance Body Areas Satisfaction Scale: satisfaction with specific areas of the body Overweight preoccupation: fat anxiety, dieting, and weight vigilance Self-classified weight: rating weight from "very underweight" to "very overweight"	IC: appearance evaluation: males (0.88), females (0.88); appearance orientation: males (0.88), females (0.85); Body Areas Satisfaction Scale: males (0.77), females (0.73); overweight preoccupation: males (0.73), females (0.76); self-classified weight: males (0.70), females (0.89) TR: 1 mo; appearance evaluation: males (0.81), females (0.91); appearance orientation: males (0.89), females (0.90); Body Areas Satisfaction Scale: males (0.86), females (0.74); overweight preoccupation: males (0.79), females (0.89); self-classified weight: males (0.86), females (0.74)	IC: appearance evaluation, appearance orientation, overweight preoccupation: 996 males, 1,070 females; Body Areas Satisfaction Scale, self-classified weight: 804 females, 335 males TR: 804 female and 335 male college students
Body-Image Ideals Questionnaire	Cash & Szymanski (1995)[28]	11 items assessing self-ideal discrepancy and importance of ideals in 10 specific aspects of appearance and overall appearance	IC: males (0.81), females (0.76) TR: none given	192 male and 896 female adults
Self-Image Questionnaire for Young Adolescents-Body Image Subscale	Peterson (1984)[29]	Designed for 10–15 year-olds; 11-item body image subscale assesses positive feelings toward the body	IC: boys (0.81), girls (0.77) TR: 1 y (0.60); 2 y (0.44)	335 sixth grade students who were followed through the eighth grade

(continued)

Table 3 (continued). Measures of Body Satisfaction and Related Concepts in Adolescents and Adults[a]

Instrument	Author (year)	Description	Reliability	Standardization Sample
Affective				
Physical Appearance State and Trait Anxiety Scale	Reed et al (1991)[30]	Rates the anxiety associated with 16 body sites (8 weight relevant, 8 nonweight relevant); trait and state versions available	IC: trait: 0.88–0.92 TR: 2 wk, 0.87	
Cognitive				
Appearance Schemas Inventory	Cash & Labarge (1996)[31]	14 items assess dysfunctional appearance-related assumptions	IC: males (0.82), females (0.86) TR: 1 mo, males (0.76), females (0.72)	IC: 332 males, 1,349 females TR: 30 males, 114 females
Attention to Body Shape Scale	Beebe (1995)[32]	7 items assess degree of focus on body shape	IC: males (0.72–0.82), females (0.70–0.83) TR: males (0.87), females (0.76)	IC: 22 males, 167 females in 3 samples TR: 22 males, 49 females
Multidimensional Media Influence Scale (MMIS)-Adolescent Version and Adult Version	Cusumano and Thompson (2001)[33]	MMIS-adolescent: 5 items assess internalization of sociocultural appearance ideals from the media MMIS-adult: 15 items assess internalization of sociocultural ideals from the media	MMIS-adolescent IC: females (0.86) TR: females (0.86) MMIS-adult IC: females (0.91) TR: none given	MMIS-adolescent: IC: 187 middle school girls TR: 33 middle school girls MMIS-adult: IC: 150 female undergraduates
Body Image Avoidance Questionnaire	Rosen et al (1991)[34]	Assesses the frequency with which one engages in avoidance behaviors related to body image	IC: 0.89 TR: 2 wk, 0.87	145 female undergraduates

[a]Reprinted with permission from Cash and Pruzinsky.[4]
Abbreviations: IC = internal consistency, TR = test-retest.

Table 4. Personality Types and Their Reaction to Medical Illness[a]

Personality Type	Reaction to Medical Illness
Dependent, overdemanding	Needs special attention
Orderly, controlled	Needs as much information as possible
Dramatizing, emotionally involved, captivating	Acts with and expects warmth and personal connection to caregiver
Long-suffering, self-sacrificing	Attributes illness to "bad luck"
Guarded, querulous	Paranoid, expects the worst
Self-aggrandizing	Often insecure when speaking with anyone other than their own physician
Uninvolved, aloof	Often denies their illness

[a]Based on Kahana and Bibring.[35]

Table 5. Diseases by Organ System Affected by Body Image

Organ System	Diseases or Patient Experiences With Body Image Disturbance
Psychiatric	Anorexia, bulimia, obesity, tardive dyskinesia, extrapyramidal symptoms, depression, body dysmorphic syndrome, borderline personality disorder, bipolar disorder
Neurologic	Cerebral palsy, Bell's palsy, Guillain-Barre syndrome, Myasthenia gravis
Cardiovascular	Hypertension, Marfan syndrome
Respiratory	Emphysema, tracheostomy, cystic fibrosis
Gastrointestinal	Ostomies, hepatitis, cirrhosis, pilonidal disease, ventral hernia
Genitourinary	Benign prostatic hypertrophy, erectile dysfunction, incontinence, genital herpes, sexually transmitted diseases, pregnancy
Dermatologic	Eczema, alopecia areata, acne vulgaris, burns, vitiligo
Musculoskeletal	Fractures, contractures, back disorders, arthritis, amputations and phantom limb phenomenon
Endocrine	Diabetes, thyroid disorders, acromegaly, dwarfism, growth hormone deficiency, precocious puberty, Turner's syndrome, Cushing's syndrome
Ear, nose, and throat	Oral herpes
Hematologic	Thalassemia

positively, they tend to be less depressed, to be less socially anxious, and to have higher self-esteem.[38]

WHAT ARE SOME COMMON DISORDERS CAUSED BY BODY IMAGE DISTURBANCE?

Thus far, we have discussed life experiences, medical conditions, and medications that may lead to body image changes. For example, trauma, endocrine disorders, cancer, steroid treatment, and antidepressants commonly lead to changes in appearance that may lead to body image disturbance. In the previous examples, the body image disturbance is the effect of an antecedent life experience, medical condition, or treatment. However, we would like to also present some common disorders wherein the cause and effect are reversed. That is to say, body image is the cause rather than the effect, and the result is a body image

Table 6. Differences Between Normal Dieting and Anorexia Nervosa[a]

Normal Dieting	Anorexia Nervosa
Goal of weight loss improves health as well as appearance	Goal of weight loss is to achieve happiness, regardless of health consequences
Self-esteem is based on weight, body image, and other factors	Self-esteem is based only on weight and thinness
Dieting is a method to control weight	Dieting is a way to control one's life and emotions

[a]Based on American Psychiatric Association.[39]

disorder according to the *DSM-IV-TR*.[39] These disorders are anorexia nervosa, bulimia nervosa, and body dysmorphic disorder, also known as dysmorphophobia. While a comprehensive presentation of each disease is beyond the scope of this article, we will focus on those aspects relevant to primary care physicians who may encounter these patients and refer them to mental health professionals. Key considerations will include issues related to assessment, referral, and treatment.

ANOREXIA NERVOSA

According to the *DSM-IV-TR*,[39] anorexia nervosa is characterized by "an intense fear of gaining weight or becoming fat, even though underweight" and "disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of current low body weight."[39(p589)] The body image disturbance in anorexia is so significant that even after weight restoration, the majority of patients with anorexia nervosa continue to worry excessively about body weight and shape.[40] The anorexic patient restricts calories, but there is a significant difference between the normal dieter and the patient with anorexia; the anorexic patient places supreme importance on his or her appearance. Table 6 shows the difference between the characteristics of the normal dieter and the patient with anorexia nervosa.[39]

The clinician should note that anorexic patients often are emaciated and have electrolyte disturbances, thinning hair, amenorrhea, and dry skin (due to electrolyte disturbances and malnutrition). Therefore, when requesting a psychiatric consultation, it is helpful to consider abnormal laboratory values and whether the patient, if female, is menstruating normally. Treatment of anorexia nervosa involves size estimation feedback and cognitive-behavioral therapy aimed at reinterpreting the body image disturbance, rather than on trying to completely change it. The physician also needs to be aware that patients with anorexia often present with severe electrolyte imbalances; these abnormalities need to be measured and corrected as necessary.

Table 7. Binge-Purge Cycle[a]

1. Body image disturbance
2. Shame and disgust
3. Strict dieting
4. Tension and craving
5. Binge eating
6. Purging to avoid weight gain

[a]Based on Posavac et al.[41]

BULIMIA NERVOSA

Similar to the case of anorexia, bulimia nervosa is preceded by a similar body image disturbance and fear of becoming fat; afflicted patients control this fear by purging, by taking laxatives, or by exercising after binge eating. Primary care physicians should be aware that bulimic patients are at increased risk for the development of comorbid conditions (eg, obesity, substance abuse, and major depression).[39] Unlike the anorexic patient, the patient with bulimia consumes large amounts of calories, then tries to "undo" the eating by a variety of methods (as mentioned above). The primary care physician should inform his or her patient that purging only eliminates up to 50% of the calories consumed, but usually much less. Laxatives and diuretics are minimally effective due to the fact that the weight loss achieved is mostly water.

It is helpful to assess for the effects of acidic vomitus on the bulimic's teeth as a primary sign. Other signs for the physician, friends, and family of the patient include going to the bathroom after meals, using laxatives excessively, using diuretics or enemas, exercising compulsively, or developing scars on the knuckles from putting fingers in the mouth to induce vomiting. When requesting a psychiatric consultation for a bulimic patient, the presence of these comorbidities will be important. Table 7 lists the sequence of the binge-purge cycle that sustains bulimia.[41]

The treatment of choice for bulimia is cognitive-behavioral therapy aimed at breaking the binge-purge cycle, as well as changing unhealthy thoughts and patterns. Antidepressants are also used in the treatment of bulimia. Posavac and associates[41] found that brief interventions helped women become more critical of media messages and reduced the adverse effects of exposure to thin ideal images.

BODY DYSMORPHIC DISORDER

Body dysmorphic disorder involves a preoccupation with an imagined defect in appearance.[39] For example, when an objectively slight physical anomaly is present, the patient with body dysmorphic disorder has a markedly excessive concern. The patient's preoccupation causes clinically significant distress or impairment in social, occupational, or other areas of function not better accounted for by another mental disorder. As

Table 8. Behaviors Associated With Body Dysmorphic Disorder[a]

Excessive mirror checking
Excessive grooming
Camouflaging with makeup, body position, clothing, or hair
Seeking reassurance
Comparing with others
Skin picking

[a]Based on American Psychiatric Association.[39]

in anorexia and bulimia, a body image disturbance precedes the disease. The most common territories of concern for the patient involve the face (more specifically the hair, skin, and nose). Most afflicted patients have low self-esteem, shame, embarrassment, unworthiness, and a fear of rejection. Patients often perform repetitive, time-consuming, and compulsive behaviors to inspect, hide, or fix the perceived defect. Ironically, although the goal of these behaviors is to diminish the anxiety provoked by the body image concerns, these behaviors often increase and maintain the anxiety. Table 8 lists some of the behaviors associated with body dysmorphic disorder.[39] These behaviors are abnormal in both a qualitative and quantitative manner.

When requesting a psychiatric consultation for body dysmorphic disorder, it is helpful to know whether the patient has received plastic surgery or dermatologic treatments. In fact, one reason that body dysmorphic disorder has been underdiagnosed is because affected patients seek nonpsychiatric treatment (eg, cosmetic surgery, dermatologic therapy) and are reluctant to reveal concerns about their appearance due to feelings of shame.[42] Since body dysmorphic disorder has been omitted from previous versions of the *DSM*, it has been more difficult for some clinicians to recognize. Treatment of body dysmorphic disorder, like bulimia, involves cognitive-behavioral therapy and antidepressants. Other adjunctive therapies (eg, supportive psychotherapy and insight-oriented psychotherapy) have been tried, but there are little data to support their efficacy.[42]

Body image changes can result from medical, surgical, or traumatic conditions and may be the cause of others (eg, anorexia, bulimia, and body dysmorphic disorder).

HOW CAN WE MANAGE BODY IMAGE DISTURBANCE?

Disfigurement can be divided into 2 groups: objective (true disfigurement) and subjective (perception of disfigurement); their management may differ. Patients can correct a defect with surgery or learn to hide the defect. However, if a patient believes that he or she is disfigured, but does not have a true disfigurement, it may help to reframe his or her experience (eg, by seeing someone else with a similar defect and learning how he or she copes with it).

In addition to accurate assessment, optimal management of body image may include pharmacologic interventions for anxiety or depression. Behavioral modification can also be used to teach coping skills and relaxation techniques. Physical modification of the body (eg, via plastic surgery, weight gain, weight loss, and muscle building) may also be used. In short, problem solving on many levels (eg, psychological, emotional, medical, physical, spiritual, and cultural) may be required to assist with body image management.

CONCLUSION

When considering body image, it may be helpful to remember the often-used phrases: "beauty is in the eyes of the beholder," "beauty is only skin deep," and "never judge a book by its cover." These expressions take on new meaning when considering body image *vis-à-vis* its role in the mediation of reactions to physical conditions. Body image develops relatively early in life and can be measured in children, adolescents, and adults with a variety of scales (from both global and body area–specific perspectives). Since many disease processes, medical and surgical interventions, and possibly patient factors contribute to changes in body image, assessment and management of body image facilitate positive patient experiences and outcomes.

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