

## Exposure, Response Prevention, and Cognitive Therapy in the Treatment of Body Dysmorphic Disorder

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Behavioral treatment of body dysmorphic disorder (BDD) is vastly neglected in the behavioral literature. The primary target symptom associated with BDD is a preoccupation with a perceived physical defect that is not noticeable to others but that the individual attempts to correct by the use of cosmetic/dermatological products, plastic surgery, or mirror checking. Five BDD patients who received exposure, response prevention, and cognitive therapy were described. These 5 patients all refused pharmacotherapy and underwent either intensive ( $n = 3$ ) or weekly ( $n = 2$ ) behavior therapy. Patients in intensive therapy received 90-minute sessions 5 days per week whereas patients in weekly treatment received one 90-minute session per week. Four out of 5 patients improved on the Overvalued Ideation Scale (OVI) and on the Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) modified for BDD. Based on these case histories, behavior and cognitive therapy may be a suitable treatment approach for BDD.

As of 1987, body dysmorphic disorder (BDD) has been classified as a psychiatric disorder in the *Diagnostic and Statistical Manual of Mental Disorders (DSM-III-R*, American Psychiatric Association, 1987). Prior to that time, there had been a few reports on dysmorphophobia, a term coined by Morselli in 1886 that corresponds to today's description of BDD. Thereafter, only a handful of anecdotal reports have been published.

The term BDD was selected in *DSM-III-R* because it was believed that dysmorphophobia was a misnomer, implying a phobia (fear) of one's perceived physical deformity rather than a preoccupation with it. However, researchers use the two words interchangeably.

Although there is little written about this disorder and its treatment, a review primarily focused on its pharmacological treatment has been provided

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by Phillips (1991). Some reports illustrate the efficacy of antidepressants such as clomipramine or fluoxetine (Sondheimer, 1988; Hollander, Liebowitz, Winchel, Klumker, & Klein, 1989), imipramine or amitriptyline (Solyom, DiNicola, Phil, Sookman, & Luchins, 1985), and tranylcypromine (Jenike, 1984). However, negative results have been reported for clomipramine (Vitello & de Leon, 1990), imipramine (Braddock, 1982; Jenike, 1984; Thomas, 1984; Hollander et al., 1989), trazodone, lithium, alprazolam (Hollander et al., 1989), and diazepam (Marks & Mishan, 1988). Thus, mixed results were found with pharmacological treatments.

Behavior therapy has been utilized in a few cases but almost always in conjunction with pharmacotherapy. Solyom et al. (1985) treated 1 patient successfully using an audiovisual program of flooding, and 2 patients unsuccessfully using thought stopping and aversion-relief. However, these cases also were given drug treatment. Vitello and de Leon (1990) reported that behavior therapy (without specifying type) combined with pharmacotherapy was ineffective in the treatment of BDD in 1 patient. In another case report, Munjack (1978) found systematic desensitization to yield a positive treatment outcome. Marks and Mishan (1988) noted exposure therapy to be effective. This latter study reported on 5 patients, 2 of whom were either psychotic or should have been classified as delusional disorder, somatic type, according to *DSM-III-R*; and 3 of whom received medications with exposure treatment. Therefore, it was difficult to isolate the effects of medication from the effects of exposure, and different diagnoses were pooled. Neziroglu and Yaryura-Tobias (in press) reported on the behavioral and pharmacological treatment as well as the psychological profiles of 13 BDD patients.

In total, there have been 8 cases of true BDD reported by different researchers, each of whom utilized a different form of behavior therapy, most often combined with drug treatment and nonstandardized diagnoses. The treatments were described only briefly, if at all, in most of the case studies.

This report describes the behavior (exposure and response prevention, or ERP) and cognitive therapy applied to 5 patients with BDD who refused pharmacotherapy. It offers an old treatment approach, ERP, to a new problem, BDD. ERP was chosen because OCD patients who are very similar to BDD patients respond best to ERP (Yaryura-Tobias & Neziroglu, 1983). It is the intent of this paper to familiarize the clinician with the application of ERP and cognitive therapy to BDD.

## Method

### *Subjects*

Two men and 3 women whose primary diagnosis was BDD according to *DSM-III-R* (1987) sought treatment specifically for BDD, although they also met *DSM-III-R* criteria for OCD as well. The OCD was not treated concurrently with the BDD and, therefore, this paper deals only with BDD treatment. These patients were 5 consecutive patients who had diagnosable BDD but were selected for the study from a pool of other BDD patients because they refused pharmacotherapy. The patients' ages at assessment ranged from

16 to 33 ( $\bar{M} = 24.6$ ), with a mean age of onset of BDD of 19.2 years. Demographic information, such as marital status, race, socioeconomic status, and education level, is provided in each case presentation.

Patients were diagnosed independently by a psychiatrist as well as by a psychologist and later discussed in an interdisciplinary meeting. There was no disagreement on the diagnosis of the 5 patients reported.

### *Assessment Instruments*

The Yale-Brown Obsessive Compulsive Disorder Scale (Y-BOCS) was administered at pretreatment, posttreatment, and 1-year follow-up (Goodman et al., 1989). The total score is based on the first 10 questions, and the severity of the disorder ranges from 0 (no symptoms) to 40 (extremely severe). The Y-BOCS was modified to reflect patients' obsessions with their body parts and compulsions to check and/or undo their "ugliness." For example, the questions were about the time occupied by thoughts about body defect; interference due to, distress associated with, resistance against, and degree of control over thoughts of body defect; time spent in activities related to body defect (i.e., wearing makeup, using dermatological products, consulting plastic surgeons, checking mirrors); interference due to activities; distress over, resistance against, and degree of control over compulsions and behaviors related to body defect. This modified Y-BOCS is being used by other researches studying BDD (E. Hollander & K. A. Phillips, personal communication, April, 1991).

Each patient's overvalued ideation (OVI), a measurement of the degree to which they believe they have a physical defect, was assessed on a scale from 1 (I know it is ridiculous, there is nothing wrong with my appearance) to 10 (there is no doubt whatsoever that the defect is real). Each patient's insight into his or her imagined defects was rated at pretreatment, posttreatment, and at 1-year follow-up. Three OVI assessments were taken because BDD patients strongly believe in their perception of ugliness and because Foa and Steketee (1979) reported high overvalued ideation to be a poor prognostic indicator in OCD.

### *Procedure*

All pretest measurements were obtained prior to behavior therapy by the treating psychologist. Prior to initiating ERP, sessions 1 through 4 consisted of information gathering, rating patients' overvalued ideation, administering the Y-BOCS, and setting up an anxiety hierarchy. The variables used in establishing a hierarchy were usually one or more of the following: (a) familiarity of the people around the patient during exposure of the body part; (b) the number of people around the patient; (c) the time of day or night; and (d) the distance of the exposed body part from others.

Sessions 5 and thereafter consisted of exposing the patients' perceived defective body part or parts to others and preventing patients from engaging in avoidance behaviors.

The following is a general description of how each session was conducted. The initial 10 minutes of each session were devoted to reviewing patients' activities since their last session. Helpful suggestions were given on how to over-

come any difficulties they may have encountered in the interim. For example, if a patient was unable to curtail using a "special" shampoo, it was suggested that a family member dispense an undesirable shampoo just prior to showering. If patients made excessive use of cover-up makeup, they either had to give up all their cosmetic products or have someone apply it for them. There was a shaping followed by a fading-out period. The major portion of the session (50–60 minutes) was spent on exposure and response prevention (ERP) followed by 20 to 30 minutes of cognitive therapy.

During the ERP portion of the sessions, patients were taken to supermarkets, department stores, restaurants, and for walks; asked to sit in crowded waiting rooms; and asked to talk to others at varying distances. In these various situations they exposed their "ugly body parts." At the same time, they were asked to avoid using dermatological products, to keep their hands away from their lips or noses, and not to blow-dry their hair or check the mirror. Mirrors in their homes were covered with towels, and shiny objects (e.g., tweezers, pocket mirrors, scissors) that they previously had used for checking themselves were confiscated. Combing and blow-drying their hair was limited to 5 to 10 minutes per day. The specific cognitions that were challenged are presented within each case illustration.

### Case Reports

A detailed case presentation is provided below of 5 patients who received cognitive behavior therapy without medication.

*Case 1.* Ms. C was a 28-year-old married white female teacher whose onset of symptoms was at age 17. She believed that she had a bad complexion and a big nose. Her compulsion to check the mirror and prick her "pimples and blemishes" interfered with her work and household chores. She had consulted several plastic surgeons who refused rhinoplasty, but she had obtained many products for her face from several dermatologists. Ms. C refused to take medication and agreed to four weeks of intensive behavior therapy. She was seen for 90 minutes 5 days per week.

After the first 4 sessions of information gathering and developing an anxiety hierarchy, ERP and cognitive therapy were begun. During sessions 5 and 6 Ms. C was taught the concepts of ERP and cognitive therapy. She was asked to take off all her makeup and to reapply only very little foundation and eye makeup in the office bathroom under supervision. Afterwards, she was exposed to the staff at our office. Sessions 7 through 10 were devoted to her using less and less makeup while being asked to get closer and closer to people at the office. This was accomplished by her asking questions to the staff while standing very close to them. By session 11, Ms. C was instructed not to wear any makeup, and she was exposed to others at stores and restaurants. Each session thereafter until session 20 was similar, with approximately 30% of the time spent in cognitive refutation of irrational cognitions.

Ms. C's need for approval and to be perfect were the faulty cognitions that were challenged at each session. The activating events that led to these cognitions were generally the presence of others, being seen in bright light, and being

close to others. Her beliefs elicited anxiety and prompted use of dermatological products, makeup, and primping behavior.

At pre-, post-, and follow-up treatment, her OVI scores were 8, 6, and 5 and her Y-BOCS scores were 20, 10, and 10, respectively. Her time spent on compulsive behaviors was reduced from spending 4 hours to spending 0 hours. She was planning on getting pregnant.

*Case 2.* Mr. R was a 16-year-old white upper-middle-class high-school student whose problems began at age 14. He believed that his nose was too big and that his head shook from right to left. Because no one else was able to see the shaking, he videotaped himself to demonstrate when and how his head shook. He gradually isolated himself and was no longer able to attend school. He did not want medication.

After an initial information-gathering and pretest measurement session, he came once a week for eight 90-minute sessions of ERP and cognitive therapy. After his 8th session he dropped out because "the therapist cannot help me stop shaking or make my nose small." During each session Mr. R was told that his head shook ferociously and that people were staring at him and talking about him. He was gradually exposed to more and more people while the therapist verbalized his fears. He was asked to sit in the waiting room, where he could be noticed, and to spend several hours a day in shopping centers talking to people. In between sessions he was asked not to make or watch videotapes of himself nor to ask others whether his head shook. He also was given cognitive therapy aimed at challenging his need for approval, his need to be perceived by others precisely the way he wanted to be, and his need to be reassured that he was not physically ill (i.e., that his head shook due to some neurological problem). Activating events were usually the presence of others. About 30 minutes of each session was dedicated to refutation of his faulty cognitions. His pretreatment, posttreatment, and 1-year follow-up OVI score was 9. He did not make any progress. He remained homebound except for a few sporadic outings. At the end of 8 sessions he still spent 6 hours a day looking at mirrors or shiny surfaces to determine if his head was shaking and to study his nose.

*Case 3.* Mr. T was a 25-year-old white male who was lower middle class, single, and unemployed. He believed his hairline was imperfect. His BDD symptoms began at age 17. Mr. T was overly preoccupied with his hairline. He agreed to come only for weekly 90-minute sessions. He received 3 sessions of information gathering, anxiety hierarchy development, and pretest measurement. During sessions 4 through 6 he was asked to wet his hair back and with his hand keep holding it up while exposing his hairline to people at our office. From sessions 6 to 12 he was no longer allowed to blow-dry his hair and in fact had to mess it up throughout the day. During the sessions he was exposed to people in stores without having combed his hair and was made to engage in longer and longer conversations. This enabled people to see his "imperfect" hairline at length. His need for perfection and approval were challenged at the end of each session. At the end of the 12th session he stopped treatment because his goal of getting a job was reached and he no longer obsessed about his hair. At pre-, post-, and follow-up treatment his OVI scores were 8, 6, and

6, respectively. He was working, for the first time in years, as a clerk in a stationery store and maintained his gains.

*Case 4.* Ms. W was a 21-year-old white female who was middle class, single, and a saleswoman. She developed BDD at age 17. She believed that her nose was big and had vascular markings. Despite reassurance from her family, friends, and boyfriend, she believed she was unattractive. She would continuously check the mirror, apply and reapply makeup, and seek reassurance. She refused medication and received 4 weeks of 90-minute sessions of exposure and response prevention 5 times per week. After 4 sessions of preliminary information gathering, ERP and cognitive therapy were begun. During sessions 5 and 6, she was taught ERP and cognitive therapy and was asked to take off her makeup. She was instructed to reapply very little foundation and minimal eye makeup. This made Ms. W very anxious, and she tried to seek reassurance from her boyfriend and mother, who were in the waiting room. Both were instructed not to reassure her any longer. From sessions 7 through 20, she was no longer allowed to use any makeup, her "vascular markings" around her nose were exaggerated by going over them with a red pen, and she had to show her profile every time she came into contact with someone new. If she questioned family members about her looks, they were to tell her that she was extremely ugly, that they were embarrassed to be seen with her, and that it was best she remained in the house forever. Cognitive therapy was used to challenge her need to be "outstanding," perfect, and approved by everyone. Her pretreatment, posttreatment, and follow-up OVI scores were 2, 0, and 0 and her Y-BOCS scores were 12, 0, and 0, respectively. Before treatment, she would spend three hours getting ready to face people. At the end of treatment, she was down to 30 minutes, which consisted of putting makeup on and getting dressed.

*Case 5.* Ms. M was a 33-year-old white female who was single and upper middle class. She had owned her own pharmacy prior to the onset of her BDD at age 31. She believed she had a bad complexion and that when her face turned red, she became ugly. These beliefs led her to become homebound. She believed that red clothes, hot air, perfumes, household products, odors, and dirt would make her flush and thus look ugly. She spent almost one year sitting in one chair at the kitchen table with the shades pulled down before she sought treatment. Her only outings were to dermatologists to obtain medications and soaps for her face. She continually washed her hands to prevent developing a rash, a pimple, or redness of the face.

Ms. M received 90-minute sessions 5 times per week for 6 weeks and then 3 times per week for an additional 6 weeks. After the initial 4 information-gathering sessions, the next 4 were devoted to having Ms. M touch various objects in the therapist's room without washing her hands. She was gradually able to sit on the different chairs and to touch the desk, bookcase, books, etc., and then touch her face. Ms. M was not allowed to wash her hands prior to touching her face. She was told that her face turned red from the dirt on her hands and that everyone in the office was going to know how ugly she was. Initially, when Ms. M came to the office, the air conditioner was turned on to "very cold" to avoid her being hot. However, this was gradually faded out

after the 9th session. After 12 weeks, she was able to travel to the office, to have minimal contact with her parents, and to go out of the office with her therapist during the sessions. Thereafter, all subsequent sessions were conducted outside the office. She was not allowed to use special products and was exposed to objects, perfumes, and household products in her house, in her parents' house, and in department stores. She went from spending 14 hours to spending 3 hours on her BDD symptoms. At pretreatment, posttreatment, and follow-up, her OVI scores were 10, 8, and 6 and her Y-BOCS scores were 35, 30, and 20, respectively. She came for weekly sessions thereafter for an additional 6 months and ultimately dropped out for financial reasons.

## Results and Discussion

Exposure and response prevention with cognitive therapy seemed to improve BDD symptoms. Three patients received intensive behavior therapy consisting of 90-minute sessions 5 days per week for 4 weeks ( $n = 2$ ) or 12 weeks ( $n = 1$ ), whereas 2 patients received weekly 90-minute sessions for totals of 8 and 12 sessions, respectively. One patient received 8 weekly sessions and was resistant to treatment; the other 4 patients improved. The patient who had 12 weeks of intensive treatment demonstrated most of her improvement at the end of 1-year follow-up. Based on only 5 case histories, it appears that the number of sessions necessary to achieve improvement varies from patient to patient. The criterion used for improvement was obsessing for less than one hour a day.

The 4 patients who improved demonstrated at least a 2-point drop in their OVI scores at posttreatment and maintained their gains at follow-up. One patient improved substantially after the initial 12 weeks of intensive treatment.

Based on clinical data reported in another paper (Neziroglu & Yaryura-Tobias, *in press*), treating patients with BDD may require sessions that are more frequent than once per week. Foa and Chambless (1978) suggested that more severe anxiety disorders require treatment more than once per week to achieve between-session habituation. BDD, which is defined by high levels of OVI, may be more refractory to treatment as compared to other anxiety disorders because between-session habituation may be difficult to achieve once per week.

Patients with BDD strongly hold a belief that others do not share (overvalued ideation). There is some element of doubt as to the degree of the belief in the physical defect, but the belief lacks the intensity and fixation of a delusion. In fact, some patients (as in Case 4) may readily admit the belief is absurd. However, unlike obsessive-compulsive patients, they do not actively resist the belief. While OCD patients are bothered by the persistent and pervasive intrusion of their obsessions, BDD patients are concerned with the content.

Although there was significant cognitive change as measured by the OVI scale, most patients continued to report feeling ugly; but they were less distressed about their appearance than they were before treatment. They were able to expose themselves to the scrutiny of others. This may be attributed to cognitive changes as well as to extinction or habituation of anxiety. Further research is necessary to tease out the effect of cognitive therapy versus ERP.

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