

Body Dysmorphic Disorder A Survey of Fifty Cases

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Background. Body dysmorphic disorder (BDD) consists of a preoccupation with an 'imagined' defect in appearance which causes significant distress or impairment in functioning. There has been little previous research into BDD. This study replicates a survey from the USA in a UK population and evaluates specific measures of BDD.

Method. Cross-sectional interview survey of 50 patients who satisfied DSM-IV criteria for BDD as their primary disorder.

Results. The average age at onset was late adolescence and a large proportion of patients were either single or divorced. Three-quarters of the sample were female. There was a high degree of comorbidity with the most common additional Axis I diagnosis being either a mood disorder (26%), social phobia (16%) or obsessive-compulsive disorder (6%). Twenty-four per cent had made a suicide attempt in the past. Personality disorders were present in 72% of patients, the most common being paranoid, avoidant and obsessive-compulsive.

Conclusions. BDD patients had a high associated comorbidity and previous suicide attempts. BDD is a chronic handicapping disorder and patients are not being adequately identified or treated by health professionals.

Body dysmorphic disorder (BDD) consists of a preoccupation with an imagined defect in appearance. If a slight physical anomaly is present, the person's concern is markedly excessive (DSM-IV; American Psychiatric Association, 1994). To fulfil the diagnostic criteria for DSM-IV, the preoccupation must cause clinically significant distress or impairment in social, occupational or other important areas of functioning. In addition the preoccupation must not be better accounted for by another mental disorder (for example, the dissatisfaction with body shape and size which occurs in anorexia nervosa). BDD was previously known as dysmorphophobia and was originally described by Morselli in 1886. In DSM-IV if the belief is of delusional intensity the patient would receive an additional diagnosis of "Delusional disorder somatic type". In ICD-10 (World Health Organization, 1992) non-delusional dysmorphophobia is subsumed under the diagnosis of hypochondriacal disorder, whereas, if the belief is of delusional intensity, the diagnosis of "Other persistent delusional disorders" is given.

There has been little research into BDD and the earlier literature is often difficult to interpret as the

older term 'dysmorphophobia' is used in a number of different ways. The only cross-sectional survey to date on BDD that used a structured diagnostic interview was carried out in the USA by Phillips *et al* (1993). They used DSM-III-R (APA, 1987) criteria for BDD in a study of 30 patients. Hollander *et al* (1993) in the USA, Gomez-Perez *et al* (1994) and Thomas (1995) in the UK, have conducted surveys of BDD which were based upon case notes. Rosen *et al* (1995), in the USA, has reported on 54 subjects with BDD who satisfied the criteria for DSM-IV. The subjects were, however, different from those described in other studies as, firstly, they were all female and secondly, they bore more similarities to a population of subjects with subclinical eating disorders.

This study has two main aims. Firstly, to conduct a survey of BDD patients in a UK population using the structured clinical interview for DSM-III-R, specifically looking at demographics, associated psychopathology, course of the illness, previous help sought and beliefs about the defects. Secondly, to compare the scores obtained on the Body Dysmorphic Disorder Examination (Rosen & Reiter, 1996) with a modified version of the Yale-

Brown Obsessive-Compulsive Scale (Hollander & Phillips, personal communication) in this population of BDD patients.

(b) Derriford Scales 4A (Carr & Harris, personal communication), developed to determine the psychological benefits of cosmetic surgery.

Method

A letter was sent to 220 consultant psychiatrists, 160 dermatologists, and 151 cosmetic surgeons in central and north London, in Hertfordshire, and in Essex, requesting referrals of patients with 'dysmorphophobia'. Other patients referred themselves to the study following the appearance of an unsolicited newspaper article about BDD in two national newspapers (*The Times* and *The Daily Mail*) and a women's magazine (*Cosmopolitan*). We wrote to all patients potentially identified as having BDD, inviting them to participate in the study. Patients who agreed attended for a series of interviews at Grovelands Priory Hospital lasting approximately two hours per patient. Diagnostic interviews were conducted by AB and patients were included if they met the DSM-III-R criteria for BDD. Exclusion criteria were schizophrenia, delusional disorder, organic brain damage, drug dependency or those preoccupied primarily with their weight or body shape.

Structured interviews

- (a) Structured clinical interview for DSM-III-R (Spitzer *et al.*, 1990), and for Axis II personality disorders.
- (b) The Body Dysmorphic Disorder Examination (BDDE; Rosen & Reiter, 1996). This is a semistructured clinical interview that is designed to aid the diagnosis of BDD. It measures dissatisfaction and preoccupation with physical appearance, avoidance of social situations and physical activity, body checking behaviour, body camouflaging and reassurance seeking.
- (c) Modified Yale-Brown Obsessive-Compulsive Scale (YBOCS) for BDD (Hollander & Phillips, personal communication).
- (d) Montgomery & Åsberg Depression rating scale (MADRS; Montgomery & Åsberg, 1979).

Self-report questionnaires

- (a) Social phobia and anxiety inventory (Turner *et al.*, 1989).

Interviewer/patient ratings

- (a) A questionnaire was created by the authors to elicit the patient's hypothesised beliefs and attitudes about their perceived defect. Patients were asked to rate the degree to which they agreed with statements such as "If my appearance is defective then I am worthless" on a scale between 1 ("not at all") to 6 ("strongly believe").
- (b) The severity of the perceived defect was rated by the same interviewer (AB) and by each patient on a scale between 1 and 6, where 1 represents no abnormality and 6 a major disfigurement.
- (c) Information was also obtained on previous treatment received.

Statistical analysis

Patients who self-referred were compared with those referred by professionals using one-way ANOVA for scores and other continuous data, and χ^2 tests for categorical data. Patients with a minor but observable defect were compared with those with no observable defect using the same techniques. Patients' "Beliefs about the defect" scores were investigated for patients with a MADRS score of greater than 20 compared with those with a score of 20 or less also using the same tests. Pearson's correlation coefficient was used to investigate the association between the YBOCS and the BDDE, MADRS and Derriford scales. All analyses were carried out using SPSS for Windows.

Results

Eighty-nine people were invited to attend for interview and of these 61 were assessed over a period of nine months. One man with apparent BDD committed suicide before being assessed; 27 did not wish to take part. Of the 61 assessed, 50 (82%) fulfilled the criteria for BDD as their primary diagnosis (in both DSM-III-R and DSM-IV). Two had a primary diagnosis of paranoid schizophrenia, one delusional disorder somatic type, two depressive episode, two obsessive-compulsive disorder (OCD), one generalised anxiety disorder, one psychogenic pain disorder, one hypochondriasis and one alcohol

misuse. Subjects without a primary diagnosis of BDD were not included in further data analysis.

Thirty-six of the 50 with BDD as a primary diagnosis were self-referrals, while 14 were referred from another speciality or agency (five patients from cosmetic surgeons or dermatologists, five from psychiatrists, two from a voluntary agency dealing with disfigurement and two from their GP). There was only one statistically significant difference on the demographic variables and rating scales between those patients who were self-referred and those referred from another agency. This was a composite score for the degree of avoidance on the BDDE – self-referrals (mean 19.7, s.d. = 9.9) compared with those referred (mean 30, s.d. = 13.9). The results of the two groups have accordingly been analysed together.

Demographic data and the results from the comorbidity and psychiatric rating scales are shown in Table 1.

Patients had a high prevalence of past suicide attempts (24%) and past depressive episodes (36%). There was also a high frequency of personality disorder in our study: 72% of patients had one or more personality disorders diagnosed, 48% had two or more disorders, 26% had three or more disorders, and 4% four or more disorders. The most common personality disorders were avoidant (38%), paranoid (38%) and obsessive-compulsive (28%). Other personality disorders found were passive aggressive (16%), dependent (12%), histrionic (8%), narcissistic (6%) and borderline (6%).

The scores on the BDDE for women are similar to the study by Rosen & Reiter (1996) on 82 BDD subjects whose mean score for women was 90.7 (s.d. 15.0). The BDDE scores were moderately correlated with the YBOCS scores ($r=0.63$, $P=0.001$). Twenty-eight per cent of patients scored above 20 on the MADRS, indicating a clinically significant depression. The YBOCS score was not significantly correlated with the MADRS score ($r=0.35$, $P=0.16$). The mean Derriford score was noticeably higher than that observed in a study of cosmetic surgery patients (mean 117.5, s.d. = 36.5; Harris & Carr, personal communication). The Derriford score also correlated with the YBOCS ($r=0.51$, $P=0.001$).

Many subjects (68%) reported multiple defects and 86% mentioned some aspect of their face. The most common locations in our survey were the nose (46%), hair (35%), skin (36%), and eyes (14%). Other areas reported were the teeth (12%), ugly face in general (12%), buttocks, legs or stomach (10%), breasts (8%), the chin (8%), mouth and jaw (combined) (8%) and male genitals (6%).

Table 1
Demographic data, comorbidity and rating scale results at time of assessment ($n=50$)

	BDD patients	Mean (s.d.)
Demographic data		
Average age (range)	32.6 years (19–58)	
Average age at onset (range)	17.9 years (3–42)	
Male	24%	
Married	26%	
Employed	50%	
Comorbidity		
Dysthymia	18%	
Major depressive episode	8%	
Social phobia	16%	
OCD	6%	
Anxiety disorders ¹	16%	
Substance misuse/dependence	2%	
Psychiatric rating scale		
BDDE		
Total		84.0 (22.9)
Men		79.3 (14.0)
Women		85.5 (25.0)
YBOCS		
Total		22.0 (6.4)
Obsessions		11.4 (3.3)
Compulsions		10.6 (4.4)
MADRS		
Total		16.7 (8.4)
Derriford Scales		
Total		154.5 (39.7)
Social Phobia Anxiety Inventory		
Total		93.5 (30.6)

1. Includes agoraphobia without panic, panic with agoraphobia, generalised anxiety disorder and simple phobia.

Table 2 lists the results of our questionnaire on beliefs about the perceived defects. There was only one statistically significant difference between subjects who were clinically depressed and those who were not, which was the belief "I would still be unattractive if I did not have my defect". Patients who were clinically depressed were more likely to endorse this belief ($P=0.04$). All other belief ratings were independent of depression scores.

For the rating of perceived defect, 77% (36/47) of patients had a normal appearance (score of 1) and the remaining 23% had a minor defect which was within 'normal' limits (score of 2). No differences on any of the measures were found between subjects scoring 1 or 2. However, 71% (34/48) of patients, when rating themselves, scored between 4 and 6.

Thirty-eight per cent (18/48) of our sample had not told their GP of their concerns. Their reasons included feeling too embarrassed, believing that their GP would not understand, not take the problem

Table 2
Beliefs about defect in BDD sample

Variable	Mean (s.d.) n=48	Frequency (%) Range: 1=I do not agree at all 6=I strongly agree
"If my appearance is defective then I am worthless"	3.6 (1.7)	I do not agree 40 I agree 60
"If my appearance is defective I shall end up alone and isolated"	4.3 (1.8)	I do not agree 31 I agree 69
"If my appearance is defective then I am helpless"	3.7 (1.7)	I do not agree 46 I agree 54
"If my appearance is defective then I am inadequate"	4.2 (1.5)	I do not agree 29 I agree 71
"If my appearance is defective then I am unloveable"	4.2 (1.7)	I do not agree 59 I agree 41
"I have to have perfection in my appearance"	4.2 (1.5)	I do not agree 31 I agree 69
To what extent do you judge others either mainly by their appearance or by many factors of which appearance is just one? (Range 1-6)	4.4 (1.5)	Mainly by appearance (1-3) 29 By many factors (4-6) 71
To what extent are you primarily concerned either by what other people think about your defect or with your own internal aversion to your defect? (Range 1-6)	3.9 (1.4)	Primary concern is what others think (1-3) 42 Primary concern is what I think (4-6) 58
To what extent do you believe that if you didn't have your defect then you would still be unattractive? (Range 1-6)	4.5 (1.2)	Still unattractive (1-3) 18 Attractive (4-6) 82
How much do you believe that others think your appearance is abnormal? (Range 1-6)	3.2 (1.5)	Others think appearance normal (1-3) 57 Others think appearance severely abnormal (4-6) 43
To what extent does the certainty about the severity of your defect vary from day to day? (Range 1-6)	3.2 (1.8)	No variation from day to day (1-3) 54 Varies greatly from day to day (4-6) 46

seriously or would not have the time. Of the 62% who had told their GP, 83% (25/30) were dissatisfied or very dissatisfied with their response. Of the 26 that had received either psychological or psychiatric treatment for their BDD, 92% (24/26) were either dissatisfied or very dissatisfied with their treatment. Forty-eight per cent had seen either a cosmetic surgeon or dermatologist at least once and 26% had undergone one or more operations on their perceived defect. Eighty-one per cent (17/21) rated themselves as dissatisfied or very dissatisfied with the outcome of the consultation or operation. Twenty-eight per cent had seen a psychiatrist at some point in the past and 12% had in-patient psychiatric treatment often for several months. At the time of the assessment, 12% were taking clomipramine, 4% were prescribed an SSRI antidepressant, 4% another antidepressant and 10% benzodiazepines.

Discussion

BDD is a chronic condition which results in significant social and psychological handicap. Our demographic results are very similar to those of

previous studies (Phillips *et al*, 1993; Hollander *et al*, 1993; Neziroglu *et al*, 1993; Gomez-Perez *et al*, 1994; Thomas, 1995). The average age of onset of BDD in our sample was 18 years which compared with a range of 15-20 years in other studies and coincides with the time when individuals are most sensitive to their appearance. Seventy-four per cent of the sample were single or divorced (80-90% in other studies) which reflects their difficulty in establishing and maintaining relationships. A notable difference apparent from our study is the proportion of females (76%) compared with other studies at 38-50%. This may have been because the majority of our sample referred themselves to the study whereas all previous studies have been based on psychiatric populations.

Comorbidity included mood disorder, social phobia and OCD, which are also reported by Phillips *et al* (1993) and Gomez-Perez *et al* (1994), although these studies recorded a higher prevalence. This again may reflect the different referral sources. There was a high prevalence of personality disorder in our study which is similar to the findings of Sanderson *et al* (1994) for social phobia patients.

Limitations of the study

While our sample may not be entirely representative as two-thirds of the sample were self-referrals, the population is the largest described in any interview based survey. Further, there were no major differences in any of the variables between those who were self-referred and those referred by another agency, other than the degree of avoidance on the BDDE (although this difference may have occurred by chance because of the number of variables examined).

Diagnostic criteria

We sometimes had difficulty in interpreting the first diagnostic criteria for BDD in DSM-IV as the assessment of "a slight physical anomaly" is a subjective judgement. It might be helpful to add a further criterion for the diagnosis that the opinion of a specialist such as a cosmetic surgeon or dermatologist is required to assess the patient's complaint and desired correction. If the specialist can agree with the patient's description of the perceived defect and desired correction, then this could exclude a diagnosis of BDD, to prevent it from being too inclusive. We suggest that future research could focus on the reliability of this criterion and the treatment outcome differences between those rated as having no physical abnormality and those having a minor defect.

We recommend that the term 'imagined defect' is removed from the definition of BDD in DSM-IV and replaced by 'perceived defect'. Symptoms such as hallucinations or pain in the context of psychological factors are not defined as 'imagined' because they are very real to the individual. We think that the same terminology should be used in BDD patients particularly because they may have a heightened awareness of their appearance.

Clinical implications

This is the first study to formally identify some of the assumptions and beliefs about the meaning of the perceived defect. This has particular relevance to cognitive therapy which does not question the aesthetic judgement made by the patient but the implications of their beliefs (Veale *et al*, 1996). These beliefs appear to be specific to BDD and independent of mood. This study highlights that BDD patients are difficult to make contact with and to therefore assess. A third of patients who expressed an interest in attending for assessment did not come, and of those assessed, over a third

had not even confided in their GP about their concerns. Of those patients who were in contact with their GP or even with psychiatric services few had their illness diagnosed or received appropriate treatment. Of those who had sought treatment (whether by cosmetic surgeons, dermatologists or mental health professionals), most had been dissatisfied with the outcome. When BDD patients consult mental health professionals, they may present with symptoms of depression, social phobia or OCD and not mention symptoms of BDD (and this is reflected in the high degree of comorbidity). We recommend that clinicians routinely question patients presenting with depression, social phobia or OCD for symptoms of BDD.

Clinical implications

- Enquire about symptoms of BDD if a patient presents with depression, OCD or social phobia.
- Awareness of high association between BDD and parasuicide when assessing patients.
- Assertive outreach is needed to assess and engage potential BDD patients.

Limitations

- The sample used in our study may not be representative of BDD patients in a psychiatric clinic because two-thirds were self-referred.
- This study did not have a matched control group and no patients had an additional diagnosis of delusional disorder.
- Difficulty in deciding what exactly the phrase "slight physical anomaly" includes.

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