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Insight in Obsessive Compulsive Disorder and Body Dysmorphic Disorder

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Abstract

Similarities between obsessive-compulsive disorder (OCD) and body dysmorphic disorder (BDD) have been described in terms of clinical presentation, comorbidity rates, treatment response profiles, and other features. This is the first study to compare insight in OCD and BDD measuring global insight and numerous components of insight. We compared insight in 64 adult outpatients with DSM-IV OCD and 85 adult outpatients with DSM-IV BDD using a reliable and valid measure (the Brown Assessment of Beliefs Scale [BABS]). BDD patients had significantly poorer global insight than OCD patients. BDD patients also had significantly poorer insight on the following components of insight: conviction that the belief is accurate, perception of other's views of the belief, explanation for differing views, willingness to consider that the belief is wrong, and recognition that the belief has a psychiatric/psychological cause. Poorer insight was significantly positively correlated with more severe symptoms of the disorder only in the BDD group.

OBSESSIVE-COMPULSIVE disorder (OCD) is characterized by persistent intrusive thoughts, ideas, or images (obsessions), and subsequent behaviors or rituals that one feels driven to perform (compulsions). Body dysmorphic disorder (BDD) is characterized by a distressing or impairing preoccupation with an imagined or slight defect in appearance (e.g., a "large" nose, or facial "scarring"). There is increasing interest in the relationship between OCD and BDD. Case studies have described similarities in these disorders,^{1,2} and a growing body of empirical literature supports a link between them. Indeed, BDD is widely considered an "OCD-spectrum disorder."^{3–5} The disorders' clinical presentations are similar, with both characterized by intrusive thoughts and compulsive behaviors.^{6,7} The two disorders have similar sex ratios, demographic characteristics, and illness severity.^{7–9} In addition, OCD and BDD often co-occur. Simeon et al. found that 12% of patients with OCD had lifetime comorbid BDD.¹⁰ Conversely, in the largest series of patients with BDD (N = 293), Gunstad and Phillips found that 33% had lifetime comorbid OCD (although rates in other studies have varied from as low as 6% to as high as 78%).¹¹ Additional evidence for a link between OCD and BDD is their apparent similarities in treatment response. Both disorders appear to respond selectively to serotonin reuptake inhibitors (SRIs).^{12–17} In addition, behavioral interventions also appear efficacious for both disorders.^{18–21}

However, differences between these disorders have also been reported. In a direct comparison of OCD and BDD subjects (N = 139), Phillips et al. found that BDD patients were younger, less likely to be married, more likely to report suicidal ideation or a suicide attempt because of their disorder, and had higher lifetime rates of major depression and social phobia.⁸ Saxena et al. (N = 107) found that BDD subjects had higher levels of clinician-rated depressive

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symptoms and trait anxiety symptoms,⁷ although McKay et al. failed to find group differences between OCD and BDD subjects (N = 45) in self-reported levels of depressive symptoms and trait anxiety.⁹

Another possible difference between OCD and BDD is degree of insight (delusionality). Some authors, on the basis of clinical observations, have noted that BDD preoccupations are held with greater conviction than OCD obsessions.^{22–24} One study found that patients with both OCD and co-morbid BDD had less insight regarding their BDD than their OCD,¹⁰ although it is unclear how insight was measured. Furthermore, in that study, although insight and symptom severity were not significantly correlated for OCD, they were strongly related for BDD. In their comparison of OCD and BDD (N = 45), McKay et al. found that BDD patients had higher scores than OCD patients on a measure of overvalued ideation.⁹ Finally, in a comparison of OCD subjects without BDD versus BDD subjects without OCD, Phillips et al. found that significantly more BDD subjects received a psychotic disorder diagnosis.⁸ In nearly all cases, the psychotic disorder diagnosis was entirely attributable to delusional BDD.

While these studies suggest that insight is poorer in BDD than in OCD, they reported a global measure of insight, which may be limited given that there is consensus in the literature that delusionality is a multidimensional construct.^{25–27} Although there is not complete agreement on what these dimensions are, they have been proposed to consist of constructs such as conviction, bizarreness, and extension,^{25–28} as well as reasonableness and accuracy of beliefs.²⁹

The current study is the first to compare insight in OCD and BDD measuring global insight and numerous components of insight. It is also the first study to compare insight in these disorders using a reliable and valid clinician-administered measure of insight (the Brown Assessment of Beliefs Scale [BABS]²⁵). In addition, this study consists of a larger sample than previous studies, thereby improving the reliability of group scores and increasing the ability to detect differences between groups. Based on the literature and our clinical experience, we hypothesized that BDD subjects would have poorer global insight than OCD subjects and that a higher percentage of BDD subjects would be classified as delusional. Regarding specific components of insight, we hypothesized that BDD subjects would have higher conviction that their belief is accurate, since this component is probably most similar to constructs of global insight used in previous studies. We had no specific hypotheses regarding other components of insight. Finally, we hypothesized that poorer insight would be associated with more severe BDD symptoms. This hypothesis was based on the literature and a previous study in a different BDD sample in which we found that delusional subjects had more severe BDD symptoms than nondelusional subjects.³⁰

METHOD

Subjects and Procedure

Subjects were 64 adult outpatients meeting both DSM-III-R and DSM-IV criteria for OCD and 85 adult outpatients meeting DSM-IV criteria for BDD.^{31,32} Subjects were not excluded if their OCD or BDD preoccupations were delusional. They were referred to BDD and OCD pharmacotherapy studies at the same site; these studies included baseline assessments of symptom severity and insight (see below) prior to initiation of treatment. OCD subjects were recruited from an open-label study of relapse following discontinuation of sertraline.²⁸ BDD subjects were recruited from an open-label study of fluvoxamine³³ and a placebo-controlled study of fluoxetine.¹³ All subjects were treatment free at the time insight was assessed. After a complete description of the study to the subjects, written informed consent was obtained.

The OCD group consisted of 31 males (48%) and 33 females (52%), and the BDD group consisted of 29 males (34%) and 56 females (66%) (Fisher's exact $P = .09$). The mean age for the OCD subjects was 36.13 ± 10.00 years and for the BDD subjects was 32.18 ± 10.14 years [$t(147) = 2.37, P = .02$].

Assessments

Insight was assessed using the BABS.²⁵ The BABS is a seven-item clinician-administered scale designed to assess degree of insight (delusionality) during the past week in a variety of psychiatric disorders. The BABS assesses degree of insight dimensionally and also provides a cutpoint to differentiate delusional from nondelusional beliefs (see below). The patient's main disorder-related belief is determined, and specific probes and anchors are used to rate various components of this belief. In BDD, a typical belief might be "I am hideous looking" or "I look like a monster." In OCD, a typical belief might be "If I touch this faucet, I will get terribly ill and end up in the hospital" or "If I don't check the stove over and over, the house will burn down." The BABS's individual items assess the following components of insight: (1) conviction (how convinced the person is that his/her belief is accurate); (2) perception of others' views (how certain the person is that most people think the belief makes sense); (3) explanation of differing views (the person's explanation for the difference between his/her and others' views of the belief); (4) fixity (whether the person could be convinced that the belief is wrong); (5) attempt to disprove beliefs (how actively the person tries to disprove his/her belief); (6) insight (whether the person recognizes that the belief has a psychiatric/psychological cause); and (7) referential thinking (an optional item that assesses ideas/delusions of reference). (While BABS item 6 is called "insight" and refers to whether the person is aware that the belief has a psychiatric cause, herein we also use the term "insight" globally to capture all the components of insight, as reflected by the BABS total score.) Each item is rated from 0 to 4, with higher scores indicating poorer insight; a score of 0 on each item indicates excellent insight, and a score of 4 indicates absence of insight. The first six items are summed to create a total score (range, 0 to 24). (The seventh item is not included in the total score because referential thinking is characteristic of some disorders but not others.) In addition, beliefs can be classified as delusional or nondelusional: a total score ≥ 18 plus a score of 4 on the first item (conviction) classifies a belief as delusional. Previous sensitivity and specificity calculations showed that use of this cutpoint resulted in 100% sensitivity and 86% specificity.²³

The BABS has strong internal consistency ($\alpha = .87$), and interrater and test-retest reliability (intraclass correlation coefficients for total score = .96 and .95, respectively). The BABS also has good convergent and discriminant validity. The BABS has been used to study treatment-related changes in insight in individuals with OCD²⁸ and BDD.¹³ For the current study, all BABS interviewers were trained according to the criteria delineated by Eisen et al.²⁸ Finally, the BABS had strong internal consistency in the current sample ($\alpha = .87$).

Symptom severity was assessed using the Yale-Brown Obsessive Compulsive Scale^{34,35} for OCD and the Yale-Brown Obsessive Compulsive Scale Modified for BDD (BDD-YBOCS) for BDD.³⁶ Both scales are semistructured clinician-administered interviews that assess the severity of obsessions (time occupied, interference with functioning, distress, resistance against the obsession, and control over the obsession) and compulsions (time occupied, interference with functioning, distress if the compulsion is prevented, resistance against the behavior, and control over the behavior). Summary scores can be calculated for the obsessions items, compulsions items, and a total score (total score = 0 to 40). Higher scores indicate more severe symptoms. Both the Y-BOCS and BDD Y-BOCS have been shown to be reliable and valid.³⁴⁻³⁶ (Although the BDD-YBOCS consists of 12 items, with the total score ranging from 0 to 48, for this study scores for the first 10 items only, as listed above, are reported to facilitate

comparison with the YBOCS, which has 10 items; the 10-item version of the BDD-YBOCS has good psychometric properties.³⁶⁾

Statistical Analyses

Independent samples *t* tests were used to compare the OCD and BDD groups on Y-BOCS/BDD-YBOCS total score, obsession (items 1 through 5) and compulsion (items 6 through 10) subscales, and BABS total score. We also conducted independent samples *t* tests for each of the seven BABS items. To control for the number of tests conducted, a corrected alpha level of .01 was used for these tests. Effect sizes ($r_{\text{effect size}}$) were also calculated.³⁷ Guidelines for the interpretation of $r_{\text{effect size}}$ are small = .1, medium = .3, and large = .5. Fisher's exact test was used to compare the percentage of subjects in each group classified as delusional (total BABS ≥ 18 plus a score of 4 on item 1 [conviction]). Pearson correlations were calculated to examine the magnitude of the relationship between insight (total BABS score and individual BABS items) and symptom severity in each group. To control for the number of tests for these analyses we used a Bonferroni corrected alpha level of $P < .01$. All tests were two-tailed.

RESULTS

As shown in Table 1, BDD and OCD subjects were similar in terms of symptom severity. However, as hypothesized, BDD subjects had a significantly higher mean BABS total score (i.e., poorer insight) than the OCD subjects, and a significantly greater percentage of BDD subjects were classified as delusional (39%) than OCD subjects (2%) (Fisher's exact $P = .00$). Analysis of individual BABS items showed that, as hypothesized, BDD subjects had significantly higher conviction that their belief was accurate. They were also more certain that others think their belief is accurate, were more certain that their belief is accurate and the view of others is less accurate, were more reluctant to consider the possibility that their belief is false, and had less insight into the psychiatric/psychological cause of their belief. Effect sizes for the BABS total score and these individual items were all medium to large. Using a critical P value of .01, OCD and BDD subjects did not significantly differ on attempts to disprove the belief or on ideas/delusions of reference.

In the OCD group, the BABS total score was not significantly correlated with any of the Y-BOCS summary scores (Y-BOCS total $r = .19$, obsessions $r = .16$, compulsions $r = .18$, all P values $\geq .14$). Similarly, none of the individual BABS items were significantly correlated with the Y-BOCS total score (r values = .03 to .32). In contrast, in the BDD group, the BABS total score was significantly correlated with all three BDD-YBOCS summary scores (BDD-YBOCS total $r = .46$, obsessions $r = .44$, compulsions $r = .35$, all P values $\leq .001$). In addition, each individual BABS item was significantly correlated with the Y-BOCS total score (r values = .32 to .40, all P values $< .01$).

Total insight in nondelusional BDD subjects ($n = 52$) and nondelusional OCD subjects ($n = 63$) was also compared. Nondelusional BDD subjects had a significantly higher mean total BABS compared to nondelusional OCD subjects (13.92, SD 4.40 v 8.22, SD 3.98, respectively, $df = 113$, $t = 7.29$, $P < .001$).

DISCUSSION

To our knowledge, this is the first study to compare global insight and individual components of insight in patients with OCD and BDD. We found that overall insight was significantly worse in the BDD group, consistent with a previous smaller study using a measure of overvalued ideation.⁹ In addition, 39% of BDD patients were delusional, compared to only 2% of OCD patients. Similar levels of symptom severity in the two groups suggest that the observed differences in insight are not attributable to differences in illness severity.

Most of the individual BABS items differed significantly between the two groups, with BDD subjects having poorer insight. Of note are the effect sizes across the BABS items. Large effect sizes were found for three items: how others' view the patient's belief, explanation of differing views, and whether the patient thinks their belief has a psychological/psychiatric cause. These findings are in keeping with the authors' clinical observations of OCD—namely, that even patients with a high degree of conviction regarding their obsessional beliefs have an awareness that other people consider their beliefs absurd, and that their fears are caused by OCD. In contrast, many patients with BDD believe that others agree that they are ugly and that their appearance-related beliefs are not caused by a psychiatric illness but are, in fact, true.

Our finding that overall insight was significantly correlated with symptom severity in BDD but not OCD is congruent with previous findings¹⁰ that in individuals with OCD plus BDD, poorer insight was significantly correlated with more severe BDD but not OCD symptoms. The reason for this is unclear, but the lack of association between symptom severity and insight in OCD patients seems consistent with clinical experience. Patients with OCD often report knowing that their compulsions are senseless but feel the need to perform them anyway. Indeed, Insel and Akiskal discussed the gap between intellectual and emotional insight in OCD and presented case examples of OCD patients who intellectually described their obsessions as senseless but behaviorally appeared to embrace the obsessional idea.³⁸ In contrast, the clinical presentation of BDD patients suggests a greater congruence between intellectual and emotional insight. For example, many patients report that they feel, and know, that they look ugly and deformed, consistent with the high correlation of insight with symptom severity found in this study. The typical explanation provided by patients is that they know what they see in the mirror, and what they see must be correct.

The observed differences between OCD and BDD may have treatment implications. In our clinical experience, the poor insight generally characteristic of BDD may make it difficult to persuade patients to accept and remain in psychiatric treatment. Of interest, studies of both BDD and OCD have found that patients with poorer insight or even delusional thinking are as likely to respond to SRIs as patients with better insight.^{13,28,39} However, delusional BDD patients are less likely to respond to placebo than nondelusional BDD patients; in fact, the only placebo-controlled treatment study in BDD found that no delusional patients responded to placebo, and that delusionality (insight) as assessed by the BABS was the only predictor of treatment response.¹³ (To the best of our knowledge, insight has not been assessed in placebo-controlled treatment studies of OCD.) Although this finding requires replication, it may imply that BDD is less amenable than OCD to nonspecific treatment effects, given the far higher rate of BDD patients who are delusional.

Regarding response to cognitive-behavioral therapy (CBT), several studies have found that OCD with poor insight responds as well to behavior therapy as OCD with good insight.^{40,41} However, Foa et al. found that OCD patients with poorer insight improved less than patients with better insight.^{42,43} To the best of our knowledge, insight as a predictor of CBT outcome has been assessed in only one BDD study, which found that poorer insight was associated with poorer CBT response. This finding is congruent with clinical observations that suggest delusional BDD patients tend to be more difficult to treat than nondelusional patients and may have a poorer treatment outcome. Thus, it may be important to address poor insight in both disorders with cognitive strategies, and such strategies may be even more relevant for BDD than for OCD.

The poor insight and high rate of delusional thinking in BDD has additional clinical implications. For example, a study in a different BDD sample found that compared to nondelusional patients, delusional patients were significantly more impaired in work/academic functioning and more likely to avoid occupational/academic and social activities, be

housebound, have suicidal ideation and a history of suicide attempts, and to be hospitalized due to BDD.^{30,36} Thus, it seems warranted to closely monitor delusional patients' functioning and suicidality.

This study has several limitations. Obtaining patients from pharmacotherapy studies may have introduced some biases. In a previous study, participants in a BDD phenomenology study were more likely than pharmacotherapy study participants (some of whom also participated in the current study) to be male, unmarried, and economically dependent, and to have higher lifetime rates of psychiatric hospitalization and suicidal ideation.¹¹ How such differences might affect insight is unknown; however, one might speculate that insight may be somewhat better in pharmacotherapy study participants than in the general BDD clinical population, as participation in a psychiatric treatment study implies at least some recognition that one has a treatable psychiatric illness. This may also be the case for OCD, although the better insight and very low rate of delusional thinking in this disorder may render this issue less relevant to OCD than to BDD. While it is possible that our sample has better insight than other BDD and OCD samples, such a potential bias would likely impact both groups, and therefore is unlikely to substantially affect the between-group differences found in this study. Another limitation is that data from different OCD and BDD pharmacotherapy trials were used, although the studies' inclusion and exclusion criteria were similar.

Additional studies of insight in OCD and BDD are warranted, as insight is an important aspect of both disorders and appears to differentiate them. Such studies are also needed to increase our understanding of the relationship between obsessions and delusions and to refine treatment strategies for patients who have poor insight. For example, studies are needed in both OCD and BDD to determine whether antipsychotic augmentation of SRIs is particularly effective for patients with poorer insight or delusional thinking. Future CBT studies would be enhanced by characterizing the degree of insight prior to, and during, treatment in order to develop more specific and effective cognitive approaches for these patients.

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Table 1
Symptom Severity and Insight in OCD and BDD

	OCD (n = 64)	BDD (n = 85)	<i>t</i> [*]	<i>P</i>	<i>r</i> _{effect size} [†]
	Mean (SD)	Mean (SD)			
Y-BOCS/BDD-YBOCS Total Score	25.86 (4.30)	25.89 (4.66)	.05	.96	.04
Obsessions	12.41 (2.44)	12.93 (2.57)	1.26	.21	.01
Compulsions	13.45 (2.42)	12.96 (2.86)	1.10	.27	.09
BABS Total Score [‡]	8.38 (4.14)	16.80 (5.15)	10.74	<.001	.66
1. Conviction	2.08 (1.40)	3.25 (.90)	6.21	<.001	.46
2. Perception of others' views	.69 (.99)	2.56 (1.23)	10.01	<.001	.64
3. Explanation of differing views	.94 (1.21)	2.98 (1.03)	11.08	<.001	.68
4. Fixity of ideas	1.75 (1.21)	2.93 (.92)	6.76	<.001	.49
5. Attempt to disprove beliefs	2.34 (1.14)	2.79 (1.11)	2.38	.02	.19
6. Insight	.58 (.87)	2.33 (1.40)	8.80	<.001	.59
7. Ideas/delusions of reference	1.41 (1.49)	1.85 (1.45)	1.81	.07	.15

Abbreviations: Y-BOCS, Yale-Brown Obsessive-Compulsive Scale; BDD-YBOCS, Yale-Brown Obsessive-Compulsive Scale Modified for BDD; BABS, Brown Assessment of Beliefs Scale.

*Degrees of freedom for all comparisons = 147

[†]*r*_{effect size} guidelines: small = .1, medium = .3, and large = .5.

[‡]BABS item no. 7 (ideas/delusions of reference) is not included in the total score.