Published in final edited form as:

Child Abuse Negl. 2006 October ; 30(10): 1105–1115.

Childhood abuse and neglect in body dysmorphic disorder[#]

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Abstract

Objective—No published studies have examined childhood abuse and neglect in body dysmorphic disorder (BDD). This study examined the prevalence and clinical correlates of abuse and neglect in individuals with this disorder.

Methods—Seventy-five subjects (69.3% female, mean age = 35.4 ± 12.0) with DSM-IV BDD completed the Childhood Trauma Questionnaire and were interviewed with other reliable and valid measures.

Results—Of these subjects, 78.7% reported a history of childhood maltreatment: emotional neglect (68.0%), emotional abuse (56.0%), physical abuse (34.7%), physical neglect (33.3%), and sexual abuse (28.0%). Forty percent of subjects reported severe maltreatment. Among females ($n=52$), severity of reported abuse and neglect were .32–.57 standard deviation units higher than norms for a health maintenance organization (HMO) sample of women. Severity of sexual abuse was the only type of maltreatment significantly associated with current BDD severity ($r=.23$, $p=.047$). However, severity of sexual abuse did not predict current BDD severity in a simultaneous multiple regression analysis with age and current treatment status. There were other significant associations with childhood maltreatment: history of attempted suicide was related to emotional ($p=.004$), physical ($p=.014$), and sexual abuse ($p=.038$). Childhood emotional abuse was associated with a lifetime substance use disorder ($r=.26$, $p=.02$), and physical abuse was negatively associated with a lifetime mood disorder ($r=-.37$, $p=.001$).

Conclusions—A high proportion of individuals with BDD reported childhood abuse and neglect. Certain types of abuse and neglect appear modestly associated with BDD symptom severity and with gender, suicidality, and certain disorders.

Keywords

Body dysmorphic disorder; Dysmorphophobia; Childhood abuse; Childhood neglect

Introduction

Body dysmorphic disorder (BDD) is characterized by a distressing or impairing preoccupation with an imagined or slight defect in appearance (American Psychiatric Association, 1994). Studies report that BDD occurs in .7%–1.1% of community samples, 2%–13% of student samples, and 13% of psychiatric inpatients (Phillips, 2001). BDD is associated with very poor psychosocial functioning and quality of life (Phillips, Menard, Fay, & Pagano, 2005), and a high rate of suicide attempts (22%–29%) (F. Neziroglu, personal communication, January 15, 2006; Phillips, Coles, et al., 2005; Veale et al., 1996). Despite this disorder's severity, only

[#]Source of Funding: Supported by R01-MH60241 and K24-MH63975 from the National Institute of Mental Health to Dr. Phillips.

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limited data are available on risk factors for its development. One hypothesized risk factor is childhood abuse (Veale, 2004). However, there are no published reports on childhood abuse or neglect in BDD.

Because BDD involves disturbance in body image, research on the association of childhood maltreatment with the development of body image may be informative. It has been hypothesized that abusive experiences may result in body dissatisfaction, intense feelings of body shame, and body image distortion (Fallon & Ackard, 2002). Although findings are somewhat unclear, there is nonetheless some evidence that childhood sexual abuse is related with body image distortion among women with disordered eating (Byram, Wagner, & Waller, 1995; Waller, Hamilton, Rose, Sumra, & Baldwin, 1993). In addition, childhood sexual abuse has been related to both short- and long-term negative effects on self-esteem, a factor associated with negative body image among bulimic patients (Fallon & Ackard, 2002). These findings may be relevant to BDD, as some authors consider body image distortion and dissatisfaction to be the essential pathology underlying both BDD and eating disorders (Cororve & Gleaves, 2001; Rosen & Ramirez, 1998; Rosen, Reiter, & Orosan, 1995).

In addition, studies have found that self-reported childhood abuse and neglect are related more generally to psychopathology in psychiatric samples. The type of abuse appears particularly important when examining these associations. As previously noted, childhood sexual abuse appears related to body dissatisfaction in patients with eating disorders (Kearney-Cooke & Striegel-Moore, 1994), and childhood emotional abuse is more highly correlated with lifetime major depression than other types of abuse (Chapman et al., 2004). In contrast, childhood physical abuse appears to be strongly associated with lifetime anxiety disorders (Mancini, Van-Ameringen, & Macmillan, 1995). BDD has similarities with, and has been hypothesized to be related to, eating disorders, mood and anxiety disorders (Phillips, 2001). It is unclear, however, how common childhood maltreatment is among persons with BDD and if specific types of abuse are related to its clinical features.

Studies finding an association between childhood abuse and both suicidality and impaired social functioning may also be relevant to BDD, as 80% of individuals with BDD have experienced lifetime suicidal ideation (Phillips, 2001), and 22%–29% have attempted suicide (F. Neziroglu, personal communication, January 15, 2006; Phillips, Coles, et al., 2005; Veale et al., 1996). Several studies have found significantly higher rates of suicidal ideation and lifetime suicide attempts among young adults who reported being physically or sexually abused during childhood compared to those who had not been abused during childhood (Evans, Hawton, & Rodham, 2005; Silverman, Reinherz, & Giaconia, 1996). Emotional neglect also appears to be associated with suicidal behavior among adolescents and young adults (Brown, Cohen, Johnson, & Smailes, 1999). Likewise, 25% of adult women from a community sample who acknowledged being physically abused reported a suicide attempt versus 4% of those who had not been physically abused (Silverman et al., 1996). Childhood abuse has been found to be related to impairment in both intrapersonal and interpersonal functioning as an adult (Davis, Petretic-Jackson, & Ting, 2001; Drapeau & Peny, 2004; Mancini et al., 1995).

Studies have shown that the prevalence of childhood abuse varies by gender, particularly for sexual abuse. In community samples, childhood sexual abuse appears more common among females, with rates of 5.8% to 34% in females and 1.1% to 11% in males (Silverman et al., 1996; Walker, Carey, Mohr, Stein, & Seedat, 2002).

Because BDD is a body image disorder with a high rate of suicidality and similarities to other psychiatric disorders with a high prevalence of childhood abuse, this study examined childhood maltreatment in BDD. This study also examined associations of different types of abuse and neglect with demographic characteristics, BDD severity, body image dissatisfaction, lifetime

suicidal ideation and attempts, and presence of comorbid disorders. Based on the authors' clinical experience, it was expected that the prevalence of any type of abuse—in particular, emotional neglect—would be higher in BDD subjects than those from a HMO sample. Based on the body image literature, it was hypothesized that childhood sexual abuse would be relatively common in persons with BDD.

Methods

Participants

Participants were 52 females and 23 males. Data presented in this report were obtained from a prospective longitudinal study examining the course of BDD that enrolled participants over 2.4 years. Interviews were conducted in person by experienced clinical interviewers, who were carefully trained and closely supervised by the last author. All data were thoroughly clinically and clerically edited by senior staff. Data on perceived childhood abuse and neglect were collected at the 24-month interview; no subject refused to complete the self-report questionnaire that obtained this information (see below). Participants were diagnosed with lifetime (past or current) DSM-IV BDD or its delusional variant. Of the 75 subjects, 85.3% met criteria for current DSM-IV BDD, 12.0% were currently in partial remission, and 2.7% were in full remission (all subjects had met full BDD criteria in the past). Further study inclusion criteria were: (1) age 12 or older, (2) living locally and able to be interviewed in person, and (3) willing and able to provide written informed consent. The single exclusion criterion was the presence of an organic mental disorder. Most subjects (62.7%; $n=47$) were currently receiving outpatient mental health treatment. Participants were referred from a variety of sources: mental health professionals (53.3%), advertisements (34.7%), our program website and brochures (9.4%), non-psychiatrist physicians (1.3%) and other (1.3%). Data used from the HMO sample was the published data (Bernstein & Fink, 1998) from the Childhood Trauma Questionnaire (see below) of 1,187 women randomly selected from an HMO in the northwestern United States. Most were White and middle class (Bernstein & Fink, 1998). The study was approved by the Butler Hospital Institutional Review Board. All subjects signed statements of written informed consent.

Assessments

The Childhood Trauma Questionnaire (CTQ; Bernstein et al., 1994) is a 70-item reliable, valid, and widely used self-report measure that retrospectively assesses one's perception of childhood maltreatment. Physical, emotional, and sexual abuse as well as physical and emotional neglect are assessed. The CTQ begins with the phrase, "When I was growing up . . .," and is rated on a five-point Likert scale (1=never true, 5=very often true) based on the frequency with which the statement/events occurred. The original 70-item measure was reduced to 25 items, which yielded the five subscales indicated above. The 25-item CTQ has adequate test-retest reliability, internal consistency, convergent validity with both a clinician-rated interview of childhood abuse and therapists' ratings of abuse, and a consistent five-factor structure (Bernstein & Fink, 1998). Scores for each CTQ subscale range from 5 to 25, with higher scores indicating more severe childhood trauma. The presence and severity of each type of maltreatment were defined using recommended cutoff scores (Bernstein & Fink, 1998). The lowest cutoff scores recommended by Bernstein and colleagues were used, which have the highest sensitivity (correct identification of maltreatment), while keeping the false identification of maltreatment to less than 20%.

The *Structured Clinical Interview for DSM-IV—Non-Patient Version* (SCID-NP) was used to diagnose BDD and other Axis I disorders. Because of their subjective nature, not otherwise specified (NOS) diagnoses (with the exception of eating disorders) were not made. Current BDD severity was assessed with the *Yale-Brown Obsessive Compulsive Scale Modified for*

BDD (*BDD-YBOCS*; Phillips et al., 1997), a reliable and valid 12-item, semi-structured, interviewer-administered measure. Five items assess BDD-related obsessional preoccupations, five items assess compulsive behaviors, one item assesses insight, and one item assesses avoidance during the past week. The total score ranges from 0 to 48, with higher scores indicating more severe BDD. The *Body Dysmorphic Disorder Examination* (*BDDE*; Rosen & Reiter, 1996) is a reliable and valid 34-item, interviewer-administered scale that assesses severity of BDD symptoms and body image disturbance in the past month. Because the BDDE was removed from the study to reduce subject burden, data are available for only the first 58 participants. Body image dissatisfaction (not just BDD-related) was assessed by the following three items: dissatisfaction with general appearance (range: 0 [no dissatisfaction] to 6 [extreme dissatisfaction]), perceived physical attractiveness (i.e., physical attractiveness as perceived by others; range: 0 [attractive] to 6 [extremely unattractive]), and avoidance of others looking at their body (range: 0 [no avoidance of others seeing body unclothed] to 6 [avoids with extreme frequency]). The scale's total score ranges from 0 to 168, with higher scores indicating more severe symptoms. The *BDD Data Form*, a semi-structured instrument used in previous BDD studies (e.g., Phillips, McElroy, Keck, Pope, & Hudson, 1993; Phillips & Diaz, 1997), assessed the greatest social impairment and academic, occupational, or role impairment ever experienced due to BDD on a 9-point scale ranging from none to extreme (interference in functioning is a DSM-IV criterion for the diagnosis of BDD). Subjects were also asked if they had ever experienced suicidal ideation or attempted suicide and whether they were currently receiving mental health treatment.

Statistical analyses

Data were analyzed using the Statistical Package of Social Science (SPSS) for Windows, Version 11 (SPSS, 2003). Mean scores, standard deviations, and frequencies were computed for each subscale. Standard deviation units were calculated (mean CTQ scores from the normative sample were subtracted from mean CTQ scores from female BDD subjects and then divided by the normative standard deviation) to allow comparison of the CTQ scores among BDD participants with the published data from an HMO sample of females. A large sample of means and standard deviations are not available for males; therefore, only females were compared to the normative sample. Between-group differences for females and males were analyzed using chi-square analysis or Fisher's exact test for categorical variables and *t* tests for continuous variables. Factors potentially related to childhood abuse and neglect were evaluated using Pearson product correlations. Variables associated with current BDD severity at the $p < .10$ level (sexual abuse, age, and current treatment status) were entered into a multiple linear regression. Only females were included in this analysis because the range for severity of sexual abuse for males was very restricted (scores ranged from 5 to 7; which translates to "none" to "mild").

Because this study is exploratory, we report as significant all *p* values less than .05, two-tailed. As a result of the number of significance tests performed, caution should be used when interpreting significant results, as some, particularly those of modest significance, may be chance associations. Effect size estimates were calculated for *t* tests with Cohen's *d* (.2 is a small effect size, .5 is a medium effect size, and .8 is a large effect size) and for chi-square with the phi coefficient (Cramer's *V*) (.1 is a small effect size, .3 is a medium effect size, and .5 is a large effect size).

Results

Males and females did not significantly differ on demographic variables (Table 1). Mean BDD-YBOCS scores indicated that current (past week) symptoms were of moderate severity. Scores did not differ significantly between males and females on this measure. Females did however

report greater BDD severity during the past month on the BDDE. Females also reported greater dissatisfaction with general appearance on the BDDE ($p=.03$).

Most participants (78.7%) reported a perception of childhood abuse or neglect (Table 2). Results are presented for males and females separately. For the entire sample, the most common types of perceived childhood maltreatment were emotional neglect (68.0%) and emotional abuse (56.0%), followed by physical abuse (34.7%), physical neglect (33.3%), and sexual abuse (28.0%). Across all forms of maltreatment, mean scores reflected low-moderate severity of abuse and neglect, except for physical neglect, which reflected none or minimal severity. However, 40.0% of subjects reported perceived severe maltreatment in at least one area of abuse or neglect. Scores for females and males did not significantly differ, except that females reported greater severity of perceived childhood sexual abuse ($p=.02$). Females with BDD reported greater severity for all types of perceived abuse and neglect, with scores from .32 to .57 standard deviation units higher than for the HMO sample (Table 2).

Table 3 shows correlations for the entire sample. The different types of perceived abuse and neglect were modestly to highly intercorrelated. Current BDD severity on the BDD-YBOCS was significantly associated with perceived sexual abuse, and lifetime suicide attempts were significantly related to perceived emotional abuse, physical abuse, and sexual abuse. In addition, perceived emotional abuse was significantly related to a diagnosis of a lifetime substance use disorder ($r=.31$, $p=.02$), and perceived childhood physical abuse was negatively associated with a lifetime mood disorder ($r=.47$, $p=.001$). However, there were no significant associations between any type of perceived childhood maltreatment and a lifetime eating disorder or anxiety disorder. Self-reported sexual abuse did not predict current BDD severity when controlling for age and current treatment status ($R^2=.05$, $p=.45$).

Discussion

More than three-quarters of individuals with BDD reported a perception of childhood maltreatment. Consistent with the authors' prediction, emotional neglect was the most common form of perceived maltreatment in both males and females. Severity of self-reported abuse and neglect among females with BDD was .32–.57 standard deviation units higher than norms reported for women in an HMO sample. Consistent with previous research, females reported greater severity of perceived sexual abuse than males (Silverman et al., 1996; Walker et al., 2002). Self-reported sexual abuse severity was the only type of maltreatment related to current BDD severity; however, this association was not significant in a regression analysis. Bivariate correlations indicated that a history of attempted suicide was significantly related to perceived emotional, physical, and sexual abuse.

The current findings are consistent with studies demonstrating that reported childhood abuse is relatively common in individuals with a psychiatric disorder. Grilo and Masheb (2001) found rates of perceived abuse and neglect using the CTQ that were similar to those in this study, except in eating disorder patients higher rates of physical neglect were reported (49.0% vs. 28.8%). Persons with BDD reported severity of perceived childhood maltreatment comparable to that of adult outpatients with treatment responsive and treatment resistant depression across most categories of abuse and neglect (Kaplan & Klinetob, 2000). However, greater severity of perceived sexual abuse was reported in this sample than outpatients with treatment responsive depression (8.6 ± 6.6 vs. 6.0 ± 2.4). Research is needed to compare rates and severity of abuse and neglect in BDD with those of other psychiatric disorders.

A significant association between perceived sexual abuse and current BDD severity as assessed by the BDD-YBOCS, and a modest association between perceived sexual abuse and body dissatisfaction ($r=.25$), were found, although the latter was not statistically significant ($p=.06$), which may reflect type II error due to the relatively small sample size. Larger studies are needed

in BDD, as research has found an association between sexual abuse, negative body image (Wenninger & Heiman, 1998), and body image distortion (Byram et al., 1995). Because body image disturbance is a defining feature of BDD, it is important to determine whether childhood sexual abuse may negatively affect the subsequent development of body image in individuals and increase the risk of developing BDD. This hypothesis was proposed for the development of other body image disorders, including eating disorders (Polivy & Herman, 2002). A significant association between other types of self-reported childhood maltreatment and lifetime or current BDD severity was not found, although correlations for emotional abuse and current BDD severity were .20–.24. However, the measure of lifetime BDD severity assessed only functional impairment due to BDD, not BDD severity more generally. In addition, the sample was relatively small, possibly leading to type II error.

Subjects who reported a perception of childhood emotional, physical, or sexual maltreatment were more likely to have attempted suicide. This finding is relevant because 22%–29% of BDD patients reported attempted suicide (F. Neziroglu, personal communication, January 15, 2006; Phillips, Coles, et al., 2005; Veale et al., 1996). This current finding in BDD patients is consistent with previous findings of an association between childhood abuse and suicide attempts in adults with major depression, a disorder closely related to BDD (Brodsky et al., 2001). However, the present data were collected retrospectively and the timing of these events was not determined; thus, a causal relationship cannot be assumed. Most likely, additional factors such as revictimization during adulthood and impulsivity (Brodsky et al., 2001) may mediate the relationship between childhood abuse and suicide attempts in adulthood.

Studies have found that self-reported childhood abuse and neglect are related more generally to psychopathology in psychiatric samples. Previous studies have not found a positive association between emotional abuse and lifetime substance use disorder, as was found in the present study. However an association has been found between substance use disorders and childhood physical abuse, which was not replicated in the present study (MacMillan et al., 2001). This finding is particularly relevant to this sample, given that approximately 22%–49% of individuals with BDD have reported a lifetime co-morbid substance use disorder (Grant, Menard, Pagano, Fay, & Phillips, 2005; Gunstad & Phillips, 2003; Hollander, Cohen, & Simeon, 1993). The finding of a negative correlation between lifetime mood disorder and perceived childhood physical abuse was unexpected, given that this has not to our knowledge been previously reported for patients with depression, and may reflect type I error. Although some research has found an association between childhood maltreatment and both eating disorders (Kearney-Cooke & Striegel-Moore, 1994) and anxiety disorders (Mancini et al., 1995), this was not found in the current study. It may be that in the current study diagnoses were assessed retrospectively, whereas previous studies examined this association in those with a current disorder. In addition, our sample consisted of persons for most of whom BDD was the primary disorder.

This study has a number of limitations. BDD subjects were not directly compared to community controls or to individuals with another psychiatric disorder. The comparison sample was mostly White and middle class, and it was not a true community sample. In addition, data on childhood maltreatment were obtained retrospectively and by self-report. Self-report measures have various limitations, such as a possible reluctance to report maltreatment or recall bias (although the CTQ is a well-validated measure). In addition, onset of abuse versus onset of BDD is unknown. Furthermore, the sample size was relatively small, and the study lacked a good measure of overall lifetime BDD severity. This study also has a number of strengths, including use of a reliable and valid measure of childhood maltreatment, and inclusion of a broader sample than most previous samples ascertained for BDD (e.g., one-third of subjects were not currently receiving mental health treatment). This study is also the first to explore childhood abuse and neglect in BDD.

In summary, this study suggests that clinically significant childhood maltreatment is relatively common among individuals with BDD. It seems important for clinicians to screen patients for childhood trauma and to target it in treatment. A history of childhood maltreatment may potentially complicate treatment for BDD and may need to be directly addressed in treatment with some patients. The self-report Body Dysmorphic Disorder Questionnaire (BDDQ) and the clinician-administered BDD Diagnostic Module (Phillips, 2005) are routinely used to screen for BDD in clinic settings. While certain treatments such as cognitive behavioral therapy and serotonin reuptake inhibitors appear efficacious for BDD (Neziroglu & Khemlani-Patel, 2002; Phillips, 2002), research is still very limited. There are currently no treatments that focus on abuse issues in BDD patients but this is an important area for future development. Future, larger studies are needed to examine childhood maltreatment in BDD, particularly in males, including the important question of whether such maltreatment may be etiologically related to the subsequent development or severity of BDD.

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Table 1
Demographic and clinical characteristics of female versus male BDD participants

Variable	Females (<i>n</i> = 52)	Males (<i>n</i> = 23)	P	Effect size
Age	34.0 ± 11.9	38.7 ± 11.9	ns	.40
Marital status			ns	.16
Single	67.3%	82.6%		
Married	32.7%	17.4%		
Level of education			ns	.10
High school/GED or less ^a	25.0%	34.8%		
At least some college	75.0%	65.2%		
BDD severity				
BDD-YBOCS ^b	27.4 ± 9.9	22.7 ± 12.2	ns	.44
BDDE, ^{cd}	88.3 ± 30.0	67.2 ± 26.2	.01	.99
Lifetime impairment due to BDD	5.8 ± 1.9	6.3 ± 1.6	ns	-.23
BDDE—body image dissatisfaction, ^{cd}				
Dissatisfaction with general appearance	4.3 ± 1.3	3.5 ± 1.4	.03	.63
Perceived physical attractiveness	2.3 ± 1.8	1.6 ± 1.5	ns	.38
Avoidance of others looking at body	2.9 ± 2.7	2.0 ± 2.7	ns	.32
Suicidality (lifetime)				
Suicidal ideation	82.7%	78.3%	ns	.05
Attempted suicide	28.8%	17.4%	ns	.12

^a GED: graduate equivalency degree.

^b BDD-YBOCS: body dysmorphic disorder-Yale Brown Obsessive Compulsive Scale.

^c BDDE: body dysmorphic disorder examination.

^d *n* = 41 (females); *n* = 17 (males).

Table 2

Childhood abuse and neglect Childhood Trauma Questionnaire (CTQ) scores and frequencies for BDD participants and normative sample

CTQ subscales	Females (<i>n</i> = 52) with BDD		Males (<i>n</i> = 23) with BDD		Males versus females with BDD ^b p	Female HMO (<i>n</i> = 1187) $\bar{x} \pm SD$	SD units ^c
	$\bar{x} \pm SD$	% ^a	$\bar{x} \pm SD$	% ^a			
Any abuse or neglect	—	80.8	—	73.9	ns	—	—
Emotional neglect	12.7 ± 5.4	69.2	12.6 ± 6.4	65.2	ns	10.5 ± 5.0	.44
Emotional abuse	12.0 ± 6.4	63.5	9.2 ± 6.4	39.1	ns	9.2 ± 4.8	.57
Sexual abuse	8.6 ± 6.6	30.8	5.3 ± 6.4	21.7	.02	6.8 ± 4.2	.42
Physical abuse	8.0 ± 4.7	36.5	7.6 ± 6.4	30.4	ns	6.9 ± 3.4	.32
Physical neglect	7.5 ± 3.6	28.8	7.1 ± 6.4	43.5	ns	6.6 ± 2.7	.33

^a%—cut scores as recommended by Bernstein and Fink (1998).

^bComparison of mean severity scores on the CTQ subscales.

^cSD = standard deviation units; comparing females with BDD to HMO sample.

Table 3

Correlations between Childhood Trauma Questionnaire (CTQ) factors and clinical features among BDD participants ($n = 75$)

Variable	1	2	3	4	5	6	7	8	9	10	11
CTQ subscales											
1 Emotional neglect	—										
2 Emotional abuse	.75**	—									
3 Sexual abuse	.22	.31**	—								
4 Physical abuse	.45**	.68**	.36**	—							
5 Physical neglect	.68**	.60**	.38**	.45**	—						
Clinical features											
6 BDD-YBOCS score ^a	.07	.20	.23*	.11	.08	—					
7 BDDE total score ^b	.08	.24	.17	.10	.12	.86**	—				
8 Lifetime impairment due to BDD	.00	.13	.10	−.04	.00	.32**	.34**	—			
9 Dissatisfaction with general appearance	.10	.19	.25	.10	.12	.71**	.75**	.13	—		
10 Perceived physical attractiveness	.07	.15	.15	.05	.02	.51**	.53**	.10	.52**	—	
11 Avoidance of others looking at body	−.03	−.03	.09	−.10	.05	.58**	.61**	.41**	.39**	.42**	—
12 Suicide ideation	−.01	.14	.09	.01	.08	.12	.15	.37**	.09	.06	.00
13 Ever attempted suicide	.18	.33**	.24*	.28*	.16	.14	.16	.23*	.17	.13	.09

^aBDD-YBOCS: body dysmorphic disorder-Yale Brown Obsessive Compulsive Scale.

^bBDDE: body dysmorphic disorder examination.

* $p < .05$ (two-tailed).

** $p < .01$ (two-tailed).