Suicidality in Body Dysmorphic Disorder: A Prospective Study

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Objective: Cross-sectional/retrospective data have indicated that individuals with body dysmorphic disorder (BDD) have high rates of suicidal ideation and attempts. However, no study, to the authors' knowledge, has prospectively examined suicidality in BDD.

Method: In the first prospective study of BDD's course, the authors examined suicidality in 185 subjects for up to 4 years.

Results: Suicidal ideation was reported by a mean of 57.8% of the subjects per year, and a mean of 2.6% attempted suicide per year. Two subjects (0.3% per year) completed suicide.

Conclusions: Individuals with BDD have high rates of suicidal ideation and attempts. The completed suicide rate is preliminary but suggests that the rate of completed suicide in BDD is markedly high.

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Many case reports underscore the suicidal ideation, suicide attempts, and completed suicides that can occur in people with body dysmorphic disorder (BDD) (e.g., reference 1). In cross-sectional/retrospective studies, 45%–70% of the patients reported a history of suicidal ideation attributed primarily to BDD (2, 3). Reported rates of past suicide attempts are 22%–24% (4, 5). To our knowledge, the only study of completed suicide is a retrospective study of patients in two dermatology practices known to have committed suicide over 20 years; most who committed suicide had acne or BDD (6). However, suicidality in BDD has been minimally studied, and no study has examined any aspect of suicidality prospectively, to our knowledge. Therefore, we examined suicidal ideation, suicide attempts, and completed suicide in the first prospective study of BDD's course.

Method

Two hundred subjects were enrolled in this prospective observational study of BDD's course. The study did not provide treatment. Inclusion criteria were meeting criteria for DSM-IV BDD or its delusional variant, being age 12 or older, and being able to be interviewed in person. The only exclusion criterion was an organic mental disorder. Fifty-two percent of subjects were self-referred; 48% were referred by professionals. An institutional review board approved the study, and the subjects signed statements of informed consent (assent plus parental consent for adolescents). The subjects were interviewed at intake and then annually. Because the subjects were enrolled over 2.4 years, they had varying follow-up durations. Of the 200 enrolled subjects, 185 (92.5%) had a 1-year follow-up interview, 163 (81.5%) had a 2-year interview, 95 (47.5%) had a 3-year interview, and 25 (12.5%) had a 4-year interview.

The Longitudinal Interval Follow-Up Evaluation, a semistructured rating system for assessing the course of mental disorders (7), assessed weekly BDD severity during follow-up with the 7-point Psychiatric Status Rating for BDD; scores of 1 and 2 indicate minimal or no BDD symptoms, 3 and 4 indicate subthreshold symptoms, and 5–7 reflect full BDD criteria. The Longitudinal Interval Follow-Up Evaluation also assessed treatment received and suicide attempts during follow-up, including medical threat and intent. We determined the importance of BDD in precipitating the attempt (in the subject's view) using a 5-point scale; attempts were considered attributable to BDD if BDD was a moderate, major, or primary reason. We used the semistructured BDD Form (3, 5) to assess suicidal ideation during the year since the previous interview. Suicidal ideation was attributed to BDD if BDD was considered primarily responsible for the ideation. This measure also obtained data on demographics and BDD's clinical features, including past suicidal ideation and attempts (cross-sectional/retrospective suicidality data from the intake assessment are reported elsewhere [8]). Means, standard deviations, frequencies, annual weighted means, and 95% confidence intervals (CIs) were computed. Rates are based upon the number of subjects interviewed at follow-up; the rates of completed suicide are based on the number of subjects interviewed or due for an interview. Suicides were determined by searches of the Social Security Death Index, other search procedures, and examination of death certificates.

Results

A total of 126 of 185 subjects (68.1%) were women, 138 (74.6%) were unmarried, 157 (85.8%) were white, and 13 (7.2%) were Hispanic. At intake, the mean age was 33.0 years (SD=12.2), and the mean duration of BDD was 16.0 years (SD=12.5). At intake, 164 (88.6%) of the subjects met full DSM-IV BDD criteria (11.4% were in partial or full remission but had met full BDD criteria in the past).

At intake, 147 of 185 subjects (79.5%) reported a history of suicidal ideation; 51 (27.6%) had a history of a suicide attempt. Table 1 shows prospective suicidality data. The mean score on the Psychiatric Status Rating for BDD over 1–4 years of follow-up was 4.6 (SD=1.4) for the entire group and 4.9 (1.2) for subjects who met full criteria for BDD at intake. A total of 167 (90.3%) of the subjects received mental health treatment at some point during the follow-up period. The nine subjects (four men and five women; age: mean=37.1 years, SD=11.6) who attempted suicide during follow-up made a total of 30 suicide attempts; when we considered all attempts, the maximum level of medical threat was minimal for one subject, moderate for four subjects, severe for one, extreme for one, and resulted in death for two. The maximum level of intent (ex-

TABLE 1. Rates of Suicidal Ideation, Suicide Attempts, and Completed Suicides in 185 Individuals With Body Dysmorphic Disorder (BDD)

Variable	Annual Weighted Mean			Range (years 1–4)	
	Subjects (%)	95% CI (%)		Subjects (%)	
Suicidal ideation	57.8	53.3 to 62.3		51.1 to 72.0	
Suicidal ideation attributed to BDD (among entire sample)	35.6	31.2 to 39.9		31.0 to 39.8	
Suicide attempt	2.6	1.1 to 4.0		0.0 to 3.7	
Suicide attempt attributed to BDD (among entire sample)	1.5	0.4 to 2.6		0.0 to 1.9	
Completed suicides	0.3	–0.1 to 0.8		0.0 to 0.8	
	Mean	SD	95% CI	Mean	SD
Among subjects with a suicide attempt					
Number of total attempts	2.5	2.1	1.4 to 3.6	1.3 to 4.8	0.5 to 3.6
Number of attempts attributed to BDD	2.0	2.9	1.0 to 3.0	0.8 to 3.5	0.8 to 4.5

cluding the suicides) was definite but ambivalent in one, serious in three, very serious in two, and extreme in one.

Two subjects committed suicide (both were receiving psychiatric treatment at the time of their deaths). One was a 31-year-old single white man who was receiving disability pay and had no past hospitalizations or suicide attempts who hanged himself. The other was a 54-year-old single white unemployed man who stabbed himself. He had four past hospitalizations, all primarily for BDD, and one prior suicide attempt, attributed primarily to BDD. At their last interview, both subjects had extremely severe BDD (score of 7 on the Psychiatric Status Rating for BDD), and both considered BDD their primary (most problematic) diagnosis.

Discussion

Consistent with previous studies of past suicidality (2–5), this prospective study found that individuals with BDD had high rates of suicidal ideation and attempts. The mean annual suicidal ideation rate of 57.8% is approximately 10–25 times higher than in the U.S. population, and the mean annual suicide attempt rate of 2.6% is an estimated 3–12 times higher (9, 10). With adjustment for age, gender, and geographic region, our completed suicide rate was approximately 45 times higher than in the general population (11), that is, the standardized mortality ratio for BDD was approximately 45. Although rates of completed suicide for other disorders vary, depending on the study, and comparisons should be made with caution, examples of estimated standardized mortality ratios for suicide for other mental disorders (based on meta-analyses) are 23 for eating disorders, 20 for major depression, and 15 for bipolar disorder (12). Thus, our standardized mortality ratio for BDD appears markedly high. This result is preliminary. However, individuals with BDD have many suicide risk factors, including having high rates of psychiatric hospitalization, being single or divorced, and having high comorbidity, poor social supports, poor self-esteem, and high levels of anxiety, depression, and hostility (8).

Our study's limitations include the lack of a control group or data directly comparing subjects with BDD to individuals with other disorders, use of different instruments than in studies of other disorders, and conduction of the study in a BDD specialty setting, which may attract more severe cases. On the other hand, our rate of suicide could be an underestimate because our methods may not have detected all suicides. Our group size and limited duration of follow-up limited the stability and precision of our suicidality estimates. Studies are needed over longer follow-up periods and in other BDD samples and settings.

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References

1. Phillips KA: Body dysmorphic disorder: the distress of imagined ugliness. Am J Psychiatry 1991; 148:1138–1149
2. Perugi G, Giannotti D, Frare F, Di Vaio S, Valori E, Maggi L, Cassano GB, Akiskal HS: Prevalence, phenomenology and comorbidity of body dysmorphic disorder (dysmorphophobia) in a clinical population. Int J Clin Pract 1997; 1:77–82
3. Phillips KA, McElroy SL, Keck PE Jr, Hudson JI, Pope HG Jr: A comparison of delusional and nondelusional body dysmorphic disorder in 100 cases. Psychopharmacol Bull 1994; 30:179–186
4. Veale D, Boocock A, Gournay K, Dryden W, Shah F, Willson R, Walburn J: Body dysmorphic disorder: a survey of fifty cases. Br J Psychiatry 1996; 169:196–201
5. Phillips KA, Diaz SF: Gender differences in body dysmorphic disorder: J Nerv Ment Dis 1997; 185:570–577
6. Cotterill JA, Cunliffe WJ: Suicide in dermatological patients. Br J Dermatol 1997; 137:246–250
7. Keller MB, Lavori PW, Friedman B, Nielsen E, Endicott J, McDonald-Scott P, Andreasen NC: The Longitudinal Interval Follow-Up Evaluation: a comprehensive method for assessing outcome in prospective longitudinal studies. Arch Gen Psychiatry 1987; 44:540–548
8. Phillips KA, Coles ME, Menard W, Yen S, Fay C, Weisberg RB: Suicidal ideation and suicide attempts in body dysmorphic disorder. J Clin Psychiatry 2005; 66:717–725
9. Moscicki EK: Identification of suicide risk factors using epidemiological studies. Psychiatr Clin N Am 20:499–517
10. Crosby AE, Cheltenham MP, Sacks JJ: Incidence of suicidal ideation and behavior in the United States, 1994. Suicide Life Threat Behav 1999; 29:131–140

11. National Center for Injury Prevention and Control: WISQARS Injury Mortality Reports, 1999–2003. webappa.cdc.gov/sasweb/ncipc/mortrate10_sy.html

12. Harris EC, Barraclough B: Suicide as an outcome for mental disorders: a meta-analysis. Br J Psychiatry 1997; 170:205–228