Body Dysmorphic Disorder in Patients With Acne

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There is growing evidence that the prevalence of body dysmorphic disorder (BDD) is significantly higher in specially selected populations as compared to the general population. The goal of the current study was to evaluate prevalence of BDD in Turkish patients with mild acne presenting to a dermatologist for treatment. This study was the first empirical investigation of BDD in acne patients in Turkey. One hundred fifty-nine outpatients diagnosed with acne who consulted to the dermatology clinic were included in the study. The diagnosis of BDD was based on DSM-IV criteria and the Structured Clinical Interview for DSM-IV (SCID-I). A study-specific questionnaire was administered to document and investigate the demographic and clinical characteristics of the cases. Fourteen (8.8%) patients were diagnosed with BDD. Three (21.4%) patients with acne and BDD also had concomitant psychiatric diagnoses. All of the patients were psychiatric management-naive, never received any psychological or physical treatments. BDD was a common psychiatric condition in acne cases. We suggest that dermatologists should routinely explore symptoms and screen such patients for BDD.

BODY DYSMORPHIC DISORDER (BDD) is a relatively common yet underdiagnosed psychiatric disorder.[1,2] BDD is characterized by the presence of preoccupation about an imagined or exaggerated physical anomaly. In patients with BDD any aspect of the appearance can be the focus of concern. As a consequence, preoccupation with appearance causes significant impairment of social and occupational functioning.[3]

BDD was previously known as "dysmorphophobia" and was originally described by Morselli in 1886. In 1987, BDD was described as distinct psychiatric diagnosis in DSM-III-R.[4] However, research on BDD is still at an early stage, with no existing large controlled studies of BDD. Prevalence in the general population has been estimated to be 1% to 3%.[2,5,6] The true prevalence may be much greater because these patients usually tend to hide their complaints and many cases never come to the attention of psychiatrists.[2,7,8] Affected individuals generally prefer to consult an internal medicine, cosmetic surgery, or dermatology clinic for treatment.[1,9-11] Thus the prevalence of BDD is much higher in selected populations than in the general population. In a large survey of dermatology patients, Phillips et al.[10] found that the diagnostic rate of BDD in patients seeking treatment was 11.9%. According to these investigators, dermatologists may be the type of physicians most often consulted by patients with BDD.

Acne is a distressing condition that affects the majority of adolescents,[12] and it is one of the reasons for dematologic treatment of BDD patients.[10] Subjects with BDD frequently request inappropriate and excessive cosmetic procedures, including laser therapy, dermabrasion, or corrective surgery, or request systemic retinoid therapy for minimal acne.[13] However, the frequency of BDD among acne patients seeking dermatologic treatment is still unknown.

This study was the first empirical investigation of BDD in acne patients in Turkey. On the other hand, it was suggested that cultural norms and values may influence the content of BDD symptoms and might affect the prevalence of BDD.[14,15] However, there are relatively few cross-cultural studies of BDD. The aim of the present study was to investigate the prevalence of BDD and related demographic characteristics in patients with acne in a Turkish sample consulted to the dermatology outpatient clinic.

METHOD

Participants

Participants were consecutive outpatient diagnosed with acne who applied to the general dermatology outpatient unit (Department of Dermatology, Gülhane School of Medicine, Ankara, Turkey) between February 2000 and March 2001. The original sample included 718 subjects. However, 541 subjects with moderate or severe acne were excluded from the study. Sixteen of the subjects who were asked to participate did not wish to take part, and two subjects who had a real defect of appearance and whose defect was found to be concordant with their com-

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plaints (one subject had Cushing syndrome, and another had alopecia areata) were excluded. Thus, the total sample included 159 subjects: 77 females and 82 males. All patients gave informed consent.

Procedure

Dermatological evaluation and assessment were performed by a senior specialist dermatologist. The acne was graded according to the Cook scale.[16] Using this scale, acne is evaluated on a 0-to-8 scale anchored to photographic standards that illustrate grades 0, 2, 4, 6, and 8 (grades 0 and 2: mild acne; grades 4, 6, and 8: moderate and severe acne). The validity, sensitivity, and reliablity of this scale have been well established and it is a commonly used scale. Outpatients with acne more intense than mild were not included to the study.

Following the dermatological evaluation, all subjects with mild acne were assessed by two independent clinicians. Participants were asked to fill out a semistructured, self-report questionnaire, consisting of three sections. The first section concerned sociodemographic and dermatologic treatment variables. The second section involved a question to determine the rate of subjects who were dissatisfied with their appearance. The question was "Some people are very bothered by the way they look. Is this a problem for you?" In the third section, to screen dissatisfied body parts, obsessive thoughts, and compulsive behaviors, subjects were administered 16 questions including the DSM-IV criteria for BDD. The samples that answered "Yes" to the question in the second part of the questionnaire were accepted to have dissatisfaction with their appearance, and all of them were examined face to face by a psychiatrist. The psychiatrist checked subjects' answers to the questionnaire and evaluated subjects using the Structured Clinical Interview for DSM-IV (SCID-I)[17] (Turkish version)[18] and DSM-IV criteria for BDD. Finally, subjects who answered "Yes" to the question in the second part of the questionnaire were re-examined by another psychiatrist who was blind to the psychiatric diagnoses of subjects.

Statistical Analysis

Subjects with BDD were evaluated for their demographic and clinical characteristics and were compared with the other group that did not meet the criteria for BDD. The statistical methods used were chi-square analyses (employing Fisher's exact test when indicated) for class variables and Mann-Whitney *U* test for continuous variables. A *P* value of less than .05 was considered to indicate statistical significance in all of the analyses.

RESULTS

Of the 159 subjects assessed, 35.8% (n = 57) were found to have dissatisfaction with some aspect of appearance. However, in the clinical evaluation only 8.8% (14/159) fulfilled the criteria for BDD.

Of the 14 acne patients with BDD, eight (57.1%) were male and six (42.9%) were female. In the non-BDD group, 79 (54.5%) were male and 66 (45.5%) were female. The difference between the two groups was not statistically significant (Fisher's exact test, $P > .05$). Patients with BDD were significantly older (21.6 ± 1.9 years *v* 19.3 ± 4.0 years, $z = -2.4$, $P < .018$) and had a higher level of education (13.3 ± 2.0 years *v* 11.3 ± 3.3 years, $z = -2.1$, $P < .040$) than the patients without BDD. However, there were no differences between the two groups in terms of marital status (Fisher's exact test, $P > .05$), and economic status (Fisher's exact test, $P > .05$) (Table 1).

Age at the onset of the BDD was 17.9 ± 2.4 years (range, 14 to 21). Three (21.4%) of the BDD subjects also had seen an internist at least once. In nine cases (64.3%) repeated visits to a dermatologist were revealed. The mean number of visits to nonpsychiatric clinics was 2.4 ± 1.1 in acne patients with BDD, and 1.4 ± 0.7 in acne patients without BDD ($z = -3.7$, $P < .000$). All of the patients with BDD had received nonpsychiatric treatment for their complaints. None of BDD patients had consulted a psychiatrist previously, and they had not received either psychological or psychiatric treatment for their BDD.

There was preoccupation about various body parts other than acne in all cases. Nine subjects showed dissatisfaction with two and five with one body part. The most common locations were the nose (n = 5; 35.7%), head/face in general (n = 5; 35.7%), teeth (n = 4; 28.6%), and hips (n = 4; 28.6%). Other areas reported were hair (n = 2; 14.3%), bone structure (n = 2; 14.3%), and breasts (n = 1; 7.1%) (Table 2).

The rate of current comorbid psychiatric disorders was similar for the acne patients with and without BDD (21.4% *v* 24.8%; Fisher's exact test, $P > .05$). In the BDD group there were three (21.4%) patients with axis I comorbid psychiatric diagnosis. Two patients (14.3%) had diagnoses of dysthymia and one patient (7.1%) had diagnosis of social phobia. On the other hand, acne patients without BDD were also diagnosed with comorbid disorders. As shown in Table 1, the most common comorbid disorder was social phobia (n = 11; 7.6%), followed by major depression (n = 9; 6.2%), dysthymia (n = 7; 4.8%), generalized anxiety disorder (n = 3; 2.1%), somatization disorder (n = 3; 2.1%), and obsessive compulsive disorder (n = 3; 2.1%).

DISCUSSION

To our knowledge this report is the first empirical investigation of the prevalence of BDD in acne