

DISSOCIATIVE SYMPTOMS
AMONG PATIENTS WITH
EATING DISORDERS:
ASSOCIATED FEATURE OR
ARTIFACT OF A COMORBID
DISSOCIATIVE DISORDER?

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ABSTRACT

We examined the relationship between eating disorders and dissociative symptoms. Seventy-six subjects were 52 females diagnosed as having either an eating disorder without a comorbid dissociative disorder ($n = 14$), an eating disorder with a comorbid dissociative disorder ($n = 14$), a dissociative disorder without a comorbid eating disorder ($n = 14$), or were normal controls ($n = 14$). All subjects were administered a variety of objective assessment instruments measuring dissociative and eating disorder symptomatology. Pathological dissociative experiences as measured by the Dissociative Experiences Scale were generally found only among the patients with dissociative disorders (with or without an eating disorder). However, both eating disorder groups endorsed a variety of eating-related dissociative experiences. None of the observed effects appeared to be moderated by depressive symptomatology. The data do support the hypothesis that dissociative phenomena, independent of a comorbid dissociative disorder, may be related to the psychopathology of eating disorders. These data also add to the body of evidence demonstrating the ability of objective assessment instruments to accurately identify patients with dissociative disorders.

Numerous authors (Chandarana & Malla, 1989; Powers & Fernandez, 1984; Torem, 1986a, 1991; Vanderlinden, Vandereycken, van Dyck, & Vertommen, 1993) have recently described a possible relationship between eating disorders and dissociative experiences. Support for such a connection has generally been one of two types. In the first, researchers have found that patients with eating disorders may obtain elevated scores on self-report instruments measuring dissociative experiences (Demitrack, Putnam, Brewerton, Brandt, & Gold, 1990; McCallum, Lock, Kulla, Rorty, & Wetzel, 1992), or may have comorbid dissociative disorders (or conversely, patients with dissociative disorders may be found to have a comorbid eating disorder) (Levin, Kahan, Lamm, &

Spouster, 1993; Torem, 1986b; 1990).

A second type of support comes from the numerous anecdotal reports or descriptions of dissociative aspects relative to the phenomenology of eating disorder patients (Root, 1991; Sands, 1991; Torem, 1986a; 1992). Clinical descriptions of eating disorders may often include feelings of depersonalization and derealization, disturbances in self, emotional numbing, and amnesia (Reto, Dalenberg, & Coe, 1993). Bruch (1978), in describing several eating disorder cases, mentioned the presence of "internal dictators." These included inner voices and food thoughts that would take over and drown out her patients' ability to function, as well as indications that the concept of time was a "big blank." Bruch attributed this dissociative-like pathology to the effects of starvation and resulting psychosis.

Katz (1993) recently described numerous dissociative-like experiences that she has observed among patients with eating disorders. These included:

- 1) They (eating-disordered individuals) may carry on internal dialogues about food as if someone else were present.
- 2) They may hear voices inside their heads arguing about eating.
- 3) They may have tried to make themselves feel invisible as children in order to avoid a stressful environment.
- 4) They may will themselves not to eat, even when hungry.
- 5) They may believe that one's mind can control one's body.
- 6) They may experience absorption regarding thoughts about food.
- 7) They may encounter memory disturbances due to thoughts about food.
- 8) They may experience time distortion due to thoughts about food.

- 9) They may feel that there is another person inside them that makes them starve or binge.
- 10) They may feel that there is another person inside them that keeps them from eating, even when they are hungry or food is right in front of them.
- 11) They may feel like another person is inside them who makes them eat, even when they are not hungry.
- 12) They may feel that purging rids themselves of an undesirable part of themselves or another person.
- 13) They may feel like they are losing control over another person inside them, that will cheat, steal, or lie in order to satisfy the urge to starve or to binge.

Despite the clinical and empirical support cited above, other authors have recently questioned the association between eating disorders and dissociative phenomena (Gleaves & Eberenz, 1996; Greenes, Fava, Cioffi, & Herzog, 1993). These authors have noted that previous investigations have failed to account for possible confounds due to additional psychopathology. Greenes et al. (1993) found a significant relationship between depression and dissociation among ED patients and suggested that elevated levels of dissociative symptomatology among ED patients may be an artifact of comorbid depressive symptomatology. Support for this hypothesis was found by Gleaves and Eberenz (1996).

A somewhat obvious possible confound regarding the association between EDs and dissociative experiences that has not been investigated would be *comorbidity* of eating disorders and dissociative disorders. Since some patients with eating disorders do actually have dissociative disorders (McCallum et al. 1992), it is possible that earlier descriptions of dissociative symptoms among patients with eating disorders were simply due to the presence of a comorbid dissociative disorder. That is, patients who reported feeling controlled by another person or hearing voices arguing about food may have been a subgroup of patients with dissociative disorders.

The purpose of this investigation was to further examine the relationship between dissociative disorders and eating disorders. Specifically the goal was to attempt to determine if dissociative symptoms (including those described by Katz, 1993) reported by patients with eating disorders were somehow specifically related to the eating disorders or, rather, if the dissociative symptoms were only due to the presence of comorbid dissociative disorders. To do so, it was determined that it would be important to examine dissociative symptomatology among eating disorder patients both with and without a comorbid dissociative disorder. It was predicted that, if dissociative symptoms were simply an artifact of a

comorbid dissociative disorder, then only those patients with a comorbid dissociative disorder would report dissociative symptoms as measured by the Dissociative Experiences Scale or the eating-related dissociative symptoms described by Katz (1993). A secondary goal was also to attempt to control for depressive symptoms in examining the relationship between dissociative and eating-disorder symptoms. A third goal was to examine and compare how well patients with dissociative and/or eating disorders could be classified using objective self-report instruments.

METHOD

Subjects

Fifty-two females between the ages of 12 and 45 served as subjects and comprised four separate groups: 1) eating disorder *without* comorbid dissociative disorder ($n = 14$); 2) eating disorder *with* comorbid dissociative disorder ($n = 14$); 3) dissociative disorder *without* comorbid eating disorder ($n = 14$); and 4) normal controls ($n = 14$).

The patients in the eating disorder group (group 1) were diagnosed, based on *DSM-III-R* criteria as having anorexia nervosa ($n = 7$) or bulimia nervosa ($n = 7$). Of the patients in the eating disorders and dissociative disorders group (group two), two were diagnosed as having DDNOS and the remainder as dissociative identity disorder. Diagnosis of the patients in group two was based on the *DSM-III-R* criteria for both eating disorders and dissociative identity disorder. The subjects in the dissociative disorder group (group 3) were diagnosed, based on *DSM-III-R* criteria, as having dissociative identity disorder. Subjects in group four were not diagnosed as having any form of mental disorder, and had not been in any form of psychiatric treatment in the past two years.

MATERIALS

Three self-report instruments were administered to subjects. These were the Dissociative Experiences Scale (DES) (Bernstein & Putnam, 1986), the Eating Disorders Inventory (EDI) (Garner, Olmsted, & Polivy, 1983), and the Eating Disorders and Dissociative Symptoms Inventory (EDDS) (Katz, 1992). The DES is a 28-item self-report measure that has become the most commonly used instrument for assessing dissociative experiences. A number of recent studies have demonstrated the validity of the DES for use in clinical and non-clinical samples (see Carlson & Putnam, 1993).

The EDI is a 64-item multidimensional self-report instrument designed to measure psychological and behavioral characteristics of anorexia and bulimia nervosa. Three Subscales relate specifically to eating behavior and attitudes and five relate to additional psychopathology hypothesized to be associated with eating disorders. The EDI has established reliability and validity (Garner, Olmsted, & Polivy, 1983).

The EDDS Inventory is a 57-item self-report question-

naire, designed to assess both dissociative symptomatology and eating-disordered behaviors. In terms of dissociative symptoms the EDDS items assess autohypnosis, hypnotic anaesthesia, depersonalization, hypnoid states, ego states, identity duality, absorption, time distortions, and derealization, as well as reported histories of childhood sexual, physical, and emotional abuse history. As administered in this study, items were all scored on a 6-point forced choice format.

PROCEDURES

Dissociative disorder diagnoses were made using either the Dissociative Disorders Interview Schedule (DDIS) (Ross et al., 1989) or the Structured Clinical Interview *DSM-IV* Dissociative Disorders (Steinberg, Cicchetti, Buchanan, Hall, & Rounsaville, 1993) depending on the treatment center from which the data were obtained. Eating disorder diagnoses were made via a semi-structured interview based on *DSM-III-R* criteria as well as the subjects' responses on the Diagnostic Survey for Eating Disorders (Johnson & Pure 1986). All anorexia nervosa patients were at least 15% below their normal weight and met the amenorrhea criteria. All bulimia nervosa subjects reported bingeing at least twice weekly and purging by self-induced vomiting or laxative use.

Approval was obtained for the ethical use of human subjects. All subjects signed a consent form. Patients were administered the assessment instruments at three centers specializing in eating disorders and dissociative disorders. Subjects were administered all three instruments at time of admission to the treatment facility. The Eating Disorders and Dissociative Symptoms inventory (EDDS) was followed by the Dissociative Experiences Scale (DES), and the Eating Disorders Inventory (EDI) was last to be administered. The clinical psychologist, social worker, or psychiatrist asked the patients to complete the battery of instruments following their intake interviews. All patients completed the instruments by themselves and returned them at the DDIS or SCID-D interviews. At one of the treatment facilities, after completion of the study, patient-subjects met for a group discussion with a social worker and psychiatric nurse to address their concerns about their eating behaviors. Normal controls (NC) were female college students and working professionals. The subjects in this group were individually administered the instruments by a licensed clinical social worker, following an initial interview. All participants completed the instruments by themselves and returned them at the DDIS or SCID-interview.

RESULTS

For largely descriptive purposes, we first compared the four groups on the scales of the EDI. Analyses of variance (ANOVAs) were significant for each of the eight scales, even

if one used a bonferroni correction procedure and adopted a more conservative alpha level ($p < .006$). As would be expected, the two eating disorder groups (with and without a dissociative disorder) scored significantly higher than all other groups on the two scales most specific to eating disorder symptoms: drive for thinness and bulimia. This suggested that all of the clinical groups were not simply endorsing all types of symptomatology. All three clinical groups did score highly on the body dissatisfaction scale, although the combined dissociative disordered-eating disordered group scored significantly higher than all other groups. The three clinical groups had elevated scores on the remainder of the scales, with the comorbid ED and DD group scoring highest on the majority of the scales.

Group Comparisons on the DES

The four groups were then contrasted on total and factor scores of the DES using analysis of variance (ANOVA). Results of these analyses are presented in Table 1. As can be seen, there were significant group differences on total scores and factor subscores. These differences were significant even if one used a bonferroni correction and adopted a conservative alpha level ($p < .012$). Post-hoc comparisons were performed using Tukey's test. Both dissociative disorder groups scored higher than all other groups on both total and factor scores. The eating disorder (without comorbid dissociative disorder) group differed from the normal controls only on the absorption factor score.

To determine in what way group effects might be affected by differences in levels of depression, we then performed an analysis of covariance using the ineffectiveness scale from the EDI as a covariate. Although not originally designed to measure depression per se, this scale was constructed to measure feelings of worthlessness, insecurity, and inadequacy; and has been found to correlate highly with other measures of depression; e.g., $r = .75$ with its Beck Depression Inventory (Garner & Olmsted, 1984). For the purposes of this study, it was judged to be an adequate measure of depression.

The effect of the covariate was non-significant for each of the dependent variables, suggesting that group differences in dissociative symptoms were not due to the effect of depression. Adjusted means are also presented in Table 2. As can be seen, adjusting for the covariate had little effect on the group means, other than decreasing the differences between the control group and the non-dissociative eating disorder group. This effect, however, was non-significant.

INTERNAL CONSISTENCY OF THE EDDS DISSOCIATION SCALE

Before proceeding with analyses involving items from the EDDS, we first attempted to examine the psychometric properties of the instrument. For the items assessing dissociative-related eating disorder symptoms, the overall coefficient

TABLE 1
Group Means and Univariate Comparisons on the Dissociative Experiences Scale

	ED	DD	EDDD	CT	F	p
Total	22.2 ^a (21.7)	53.3 ^b (53.6)	63.1 ^b (58.3)	9.3 ^a (14.9)	36.5	<.0001
Amnesia	9.6 ^a (8.1)	34.0 ^{bc} (34.5)	58.2 ^c (51.2)	4.6 ^a (12.8)	23.6	<.0001
Absorption	34.4 ^a (34.0)	62.1 ^c (62.2)	68.2 ^c (66.2)	10.8 ^b (13.4)	33.5	<.0001
Depersonalization	17.1 ^a (16.0)	62.2 ^b (56.9)	53.9 ^b (54.3)	12.9 ^a (19.0)	33.5	<.0001

Note 1: Means with the same superscript are not significantly different.

Note 2: Values in parentheses are adjusted means from the analysis of covariance

Note 3: ED = eating disorder; DD = dissociative disorder; EDDD = eating disorder and dissociative disorder; CT = normal controls

cient alpha was .95, suggesting high internal consistency. Item-total correlations ranged from .41 to .87, with all but two being higher than .60.

GROUP COMPARISONS ON EATING RELATED DISSOCIATIVE EXPERIENCES

To examine the group differences on eating-related dissociative symptoms, we compared the four groups on various items of the EDDS. Results of the analyses using the data from the EDDS are presented in Table 2. Results from the ANOVAs were significant (at a bonferroni corrected alpha level of $p < .004$) for all but one (believing the mind can control the body) of the eleven features that were examined. Post-hoc comparisons were conducted using Tukey's test. On these comparisons, the two eating disorder groups did not differ on any of the features. Both eating disorder groups differed from normal controls on all but one feature, and both differed from the non-eating disordered, dissociative disorder group on the majority of the features.

When depressive symptoms (as measured by the Ineffectiveness scale from the EDI) were accounted for using analysis of covariance, the results were similar to those obtained with the DES. The effect for the covariate (using the regression method) was non-significant for each of the dependent variables, suggesting that group differences were not due to the effect of depression. Adjusted means were

nearly identical to observed means and (for that reason) are not reported here.

OBJECTIVE GROUP CLASSIFICATION USING THE EDI, DES, AND EDDS

To determine how well the various subject groups could be objectively classified using the three assessment instruments (EDI, DES, and EDDS), we then performed a series of discriminant analyses with the scales from each of these instruments as predictor variables. To obtain a more conservative estimate of the classification function, the "jackknife" (Lachenbruch, 1967) procedure was also performed using the BMDP statistical program. This procedure is a method of cross-validating the results of a discriminant analysis and gives a less biased estimate of how the function would perform on a separate (cross-validation) data set. Interested readers may consult Stevens (1986) for a discussion of this procedure.

Classification Using the EDI

In the initial analysis using the EDI, 89.1% of the subjects were correctly classified. This was significantly better than chance (Huberty $z = 9.4$, $p < .0001$) and yielded a kappa of .86. All subjects were correctly classified as to whether or not they had an eating disorder. Misclassifications (six total) occurred in the determination of whether or not subjects

TABLE 2
Group Comparisons on Eating Related Dissociative Experiences Derived from the EDDS

Feature	ED	DD	EDDD	CT	F	p
1.	4.4 ^a	2.4 ^b	4.3 ^a	1.2 ^c	56.7	<.0001
2.	4.5 ^a	3.3 ^b	4.5 ^a	1.5 ^c	29.7	<.0001
3.	4.1 ^a	4.3 ^a	4.4 ^a	1.8 ^b	30.0	<.0001
4.	3.3 ^{ab}	3.0 ^{ac}	4.2 ^b	2.1 ^c	8.9	<.0001
5.	4.5 ^a	4.1 ^{ab}	4.1 ^{ab}	3.4 ^b	3.0	<.05
6.	4.2 ^a	2.2 ^b	4.1 ^a	1.0 ^b	52.1	<.0001
7.	4.4 ^a	1.6 ^b	4.1 ^a	1.1 ^b	61.22	<.0001
8.	4.2 ^a	1.5 ^b	4.1 ^a	1.0 ^b	73.7	<.0001
9.	4.2 ^a	2.1 ^b	4.1 ^a	1.2 ^c	40.6	<.0001
10.	4.4 ^a	2.4 ^b	4.0 ^a	1.2 ^c	52.3	<.0001
11.	3.2 ^a	3.4 ^a	4.1 ^a	1.0 ^b	28.3	<.0001
12.	4.6 ^a	NA	4.4 ^a	NA		n.s.

Note: Means with the same superscript are not significantly different.

(ED = eating disorder; DD = dissociative disorder; EDDD = eating disorder and dissociative disorder; CT = normal controls)

Features:

- | | | |
|--|---|---|
| 1. Internal conversations about food. | 6. Absorption regarding thoughts about food. | 10. Feeling there is another person inside keeping one from eating. |
| 2. Hearing voices arguing about eating. | 7. Functional memory disturbance due to thoughts about food. | 11. Feeling there is another person inside making one eat. |
| 3. Trying to make self disappear as a child. | 8. Time distortion due to thoughts about food. | 12. Feeling that purging is ridding oneself of a part of self |
| 4. Ability to will self not to be hungry. | 9. Feeling there is another person inside making one starve or binge. | |
| 5. Believing mind can control body. | | |

had dissociative disorders.

The results of the jackknifed analysis using the EDI are presented in Table 3a. The classification accuracy dropped slightly (80% correctly classified; Huberty $z = p < .0001$; Kappa = .73). All but one of the eating disorder subjects were accurately identified. One control subject was misclassified as having a dissociative disorder, and three DD (without ED) subjects were misclassified as controls. Again, most disagreement concerned the identification of dissociative disordered subjects.

Classification Using the DES

For these analyses, overall classification accuracy (70.9%) was the same for the initial analysis and the jackknifed analysis. This was significantly better than chance (Huberty $z = 10.06$, $p < .001$) and yielded a kappa of .61. The results of the jackknifed analyses are presented in Table 3b. The DES was more accurate with regards to classifying subjects as having or not having a dissociative disorder. For both samples, 89.9% of the subjects were accurately classified in this regard. The DES was less able to accurately classify subjects as having or not having an eating disorder. Twenty-seven percent of the subjects were mis-classified in this regard.

TABLE 3a
Accuracy of the EDI in Classifying Subjects into
Respective Groups
(Jackknifed Classification Summary)

Predicted Group		ED	EDDD	DD	CT
Actual Group	Percent Correct				
ED	71.4	10	4	0	0
EDDD	78.6	2	11	1	0
DD	78.6	0	0	11	3
CT	92.3	0	0	1	12
Total:	80.0				

TABLE 3b
Classification Accuracy Using the DES

Predicted Group		ED	EDDD	DD	CT
Actual Group	Percent Correct				
ED	71.4	11	0	1	2
EDDD	78.6	1	10	3	0
DD	78.6	3	3	8	0
CT	92.3	2	1	0	10
Total:	70.9				

TABLE 3c
Classification Accuracy Using the EDDS Items

Predicted Group		ED	EDDD	DD	CT
Actual Group	Percent Correct				
ED	71.4	10	4	0	0
EDDD	64.3	5	9	0	0
DD	78.6	0	1	11	2
CT	92.3	0	0	1	12
Total:	76.4				

TABLE 3d
Classification Accuracy Using the EDDS and DES

Predicted Group		ED	EDDD	DD	CT
Actual Group	Percent Correct				
ED	100	14	0	0	0
EDDD	92.9	1	13	0	0
DD	92.9	0	1	13	0
CT	100	0	0	0	13
Total:	96.4				

Classification Using the EDDS

To determine how well the EDDS could accurately classify subjects from the various diagnostic groups, the eleven dissociative-related eating items from the EDDS that were applicable to all subjects (i.e., not relating specifically to purging behavior) were then used as dependent variables in the discriminant analysis. The jackknife procedure was also performed.

In the initial classification analysis, 94.6% (all but three)

subjects were correctly classified. The results were significantly better than chance (Huberty $z = 11.9$, $p < .0001$), yielded a kappa of .93, and were more accurate than either the EDI or DES. All of the control and dissociative disordered (without eating disorder) subjects were accurately classified, and all subjects were accurately classified with regards to the presence or absence of an eating disorder. Two subjects from group one (simple eating disorder) were classified as also having a dissociative disorder and one from group two

(comorbid disorders) was classified as simply having an eating disorder.

Accuracy based on the jackknifed classification (which is presented in Table 3c) dropped somewhat. Overall, 76.4% of the subjects were correctly classified. However, these data still yielded a kappa of .68 and were also significantly better than chance (Huberty $z = 8.8$, $p < .0001$). Ninety-eight percent (all but one) of the subjects were accurately classified with regards to the presence or absence of an eating disorder and 78% with regards to the presence or absence of a dissociative disorder.

Combining the EDDS and DES

Since the EDDS items were found to be adept at accurately classifying eating-disordered patients, but less accurate with regards to dissociative disorders, we conducted one additional discriminant analysis using both the EDDS and the DES (which had been found to lead to more accurate classification regarding dissociative disorders). The initial analysis led to accurate classification of all but one (98.2%) of the subjects (kappa = .98). In the jackknifed analysis, all but two (96.4%) of the subjects were misclassified. The results of this analysis are presented in Table 3d. One misclassification concerned identification of an eating disorder and the other a dissociative disorder.

DISCUSSION

Pathological dissociation, as measured by the DES, generally appeared to be characteristic of only the two dissociative disorder groups. The eating disorder group without a comorbid dissociative disorder did not differ significantly from normal controls on either total DES scores or scores on the amnesia or depersonalization subscales. Although the eating-disordered and control groups did not differ significantly on total DES scores, the scores for the eating disorder group were slightly elevated ($m = 22.2$), and with a larger sample size, this difference would most likely have been statistically significant. However, this elevation appeared to be largely due to elevations on the absorption subscale, where clear differences were found between the two groups. Given the association between absorption and hypnotizability, the current finding is consistent with previous findings of higher levels of hypnotizability among patients with eating disorders (Barabasz, 1990; Covino, Jimerson, Wolfe, Franko, & Frankel, 1994; Pettinati, Horne, & Staats, 1985).

In general, these data suggest that previous findings of elevated scores on the DES among patients with eating disorders may be due to one of two factors: either the presence of a comorbid dissociative disorder or elevations on the absorption items. Thus, elevated scores on the DES may not necessarily be indicative of a comorbid dissociative disorder; however, elevations on either the depersonalization or amnesia subscales appear to be stronger potential indicators

of such a comorbidity.

When eating-specific dissociative experiences (as measured by the EDDS) were examined, a different pattern of results was found. Both eating disorder groups (with and without a comorbid dissociative disorder) were found to differ from normal controls on all but one of the variables that were examined. Furthermore, these two eating-disordered groups did not differ from each other on any of these dissociative symptom variables, and both groups differed from the non-eating-disordered dissociative disorder group on the majority of these variables. These effects did not appear to be moderated by depression.

These data suggest that a group of dissociative-like experiences are common among individuals with eating disorders, regardless of the presence or absence of a comorbid dissociative disorder. Subjects in both eating disorder groups reported having or hearing internal conversations about food. Both groups reported wanting to make themselves disappear as a child to avoid a stressful environment, and both also reported believing that they could control their bodies through their minds. Becoming totally absorbed in thoughts about food also appeared to affect both eating-disorder groups. Both eating disordered groups also reported experiencing Schneiderian-like influence phenomena related to control of eating related feelings and behaviors.

Thus, these data suggest that these types of dissociative-like experiences, at least when reported by patients with eating disorders, are not necessarily indicative of a dissociative disorder. These data are also consistent with recent discussions of the assessment of dissociative symptoms and disorders (e.g., Steinberg et al., 1993) which have not characterized the above-mentioned symptoms as being part of the core psychopathology of dissociative disorders (which includes amnesia, depersonalization, derealization, identity confusion, and identity alteration).

With regard to the classification analyses, all three objective assessment instruments were able to objectively classify subjects fairly well, and far better than would be predicted by chance. Both the EDI and EDDS were each able to accurately identify 98% of the subjects as having or not having an eating disorder. Neither the EDI nor the items which were examined from the EDDS were as accurate at classifications with regard to dissociative disorder diagnoses. However, the DES was able to accurately identify approximately 90% of the subjects as having or not having a dissociative disorder. The most accurate classification (all but two subjects) was obtained when both the DES and EDDS were used.

The above finding would support the utility of using instruments measuring both dissociative and eating disorder symptomatology in the study or assessment of either subject population. The findings also support the development of instruments such as the EDDS, which was designed to measure both types of symptoms appears warranted. Although much more examination, refinement, and validation of the

EDDS is needed (particularly regarding the assessment of non-eating disorder related dissociative symptoms), these data suggest that it may be useful in the assessment of patients with eating-disorders and/or dissociative disorders.

The data add to the body of literature demonstrating that objective assessment measures can be used to accurately identify individuals who suffer from dissociative disorders. This type of data not only supports the validity of the assessment measures, but also the validity of the dissociative disorders diagnosis (and in this case Dissociative Identity Disorder). Robins and Guze (1970) described five types of data necessary for the establishment of validity of a psychiatric disorder: 1) clinical description; 2) laboratory studies; 3) delimitation from other disorders; 4) follow-up study; 5) and family study. Since laboratory studies may include psychological tests, when shown to be reliable (Robins & Guze, 1970), the current data support both criteria number two and number three. Objective psychological tests were found to accurately identify patients with dissociative disorders. In the final discriminant analysis, the accuracy with which patients with dissociative disorders could be identified was equal to that for the eating disorder subjects. The fact that these two groups of patients could be accurately discriminated also supports the validity of the dissociative disorder diagnosis.

We should briefly mention that a possible limitation of this study was the relatively small sample size in each of the four groups; because of this limitation, the results should be interpreted with caution. As we mentioned above, a larger sample would have most likely led to the finding of a statistically significant difference between the normal controls and the ED group on the DES. However, examination of the pattern of mean differences on the various measures suggests that the main conclusions of this study would not have been altered by using a larger sample. For example, the mean total DES score for the ED group was still not in the pathological range and was mainly due to elevations on the absorption scale. These findings could, however, be strengthened by replication with a different, larger sample.

In summary, these data suggested that, although individuals with eating disorders report experiencing a group of symptoms that may frequently be identified as dissociative, the symptoms do not appear to necessarily be indicative of a dissociative disorder. Pathological dissociation including amnesia, depersonalization, and derealization appears to be specifically characteristic of individuals with diagnosed dissociative disorders. Using objective assessment instruments, we were able to accurately classify subjects as having an eating or dissociative disorder with approximately equal precision. The results support the validity of each of the instruments used as well as the validity of the dissociative disorder diagnoses. ■

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