

# DISSOCIATIVE SYMPTOMS AND AGGRESSION IN A STATE MENTAL HOSPITAL

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## ABSTRACT

*The Dissociative Experience Scale (DES) was administered to 70 patients in a state mental hospital in the rural northeastern United States. Staff rated respondents' behavior on a scale composed of the Modified Overt Aggression Scale (MOAS), an additional question about sexual aggression, and a series of questions about other troublesome behaviors. Thirty percent of respondents scored 30 or above on the DES; 14.3% scored over 45.*

*The DES correlated significantly with the full behavior rating scale ( $r = .27$ ), the MOAS ( $r = .23$ ) and the MOAS plus sexual aggression question (EMOAS) ( $r = .23$ ). The relationship between the DES and behavior ratings varied widely between wards. Item analysis found the DES scores correlated with physical aggression ( $r = .23$ ) and aggression against self ( $r = .26$ ). Among the 27 sample females, the DES correlated significantly with the EMOAS ( $r = .38$ ), full patient behavior rating scale ( $r = .40$ ) and items on aggression against self ( $r = .33$ ) and sexual aggression ( $r = .36$ ).*

## DISSOCIATIVE SYMPTOMS AND AGGRESSION IN A STATE MENTAL HOSPITAL

Estimates of the prevalence of multiple personality disorder (MPD) and other dissociative disorders have risen dramatically over the past 10 years. Increased awareness of the possibility of undiagnosed cases has been stimulated by reports such as Putnam, Guroff, Silberman, Barban, and Post's (1986) finding that for 100 patients with MPD, an average of 6.8 years had elapsed between their first contact with the mental health care system for an MPD-related symptom and diagnosis of MPD. Recent outpatient surveys have found from 1% to 9% of the population meeting criteria for MPD, with an additional 20% or so having significant dissociative symptoms (Graves, 1989; Coggins et al., 1988; Dyck, 1988; Bliss & Jeppsen, 1985). A survey of admissions to two acute inpatient wards found that 16% of respondents met *DSM-III* criteria for MPD, and an additional 8% manifested other dis-

sociative symptoms (Bliss & Jeppsen, 1985).

A second reason to suspect the existence of undiagnosed dissociative pathology among psychiatric inpatients is the repeated finding that nearly half or more of this population were abused as children (Bryer, Nelson, Miller & Krol, 1987; Carmen, Reiker, & Mills, 1984; Craine, Henson, Colliver, & MacLean, 1988; Jacobson & Herald, 1990; Jacobson & Richardson, 1987). Although this important influence in patients' lives is often overlooked or omitted from hospital records (Jacobson, Koehler, & Jones-Brown, 1987), studies using questionnaires or interviews that inquired about these experiences found that 43% to 72% of their respondents reported histories of childhood physical and/or sexual abuse (Bryer et al., 1987; Carmen et al., 1984; Craine et al., 1988; Jacobson & Richardson, 1987). If dissociative symptoms are a sequela of child abuse, these data would indicate the presence of significant levels of dissociative pathology in this population. Only as data on the prevalence of dissociative symptoms in various mental health populations accumulate can the contribution of dissociative pathology to mental illness be appreciated.

Strategies for treatment and management of patients with dissociative symptoms can be expected to evolve as dissociative pathology and its correlates are more clearly and consistently identified. For example, current clinical lore holds that patients with MPD are very difficult to treat on a general inpatient psychiatric unit. This is supported by Putnam et al.'s (1986) findings that 70% of the multiples studied had alters described as assaultive or destructive, 34% self-mutilated, and 70% were judged suicidal. A relationship between dissociative pathology and self-destructive behavior in eating disorder patients was found by Demitrack, Putnam, Brewerton, Brandt, & Gold (1990). They divided these patients into those with Dissociative Experiences Scale (DES) score over 30 and those with DES score under 30. Eating disorder patients who had DES scores over 30 had a significantly higher frequency of suicide attempts and self-mutilation than did eating disordered patients with scores under 30. These data suggest a relationship between severity of dissociative symptoms and aggressive, disruptive behavior that may well occur in general psychiatric inpatient settings as well.

With these possibilities in mind, we decided to survey a state mental hospital in a rural area of the northeastern United States, measuring both dissociative symptoms and aggressive and disruptive behavior in each patient. It was hypothesized that patients with elevated DES scores would have higher levels of aggression directed toward self and others.

## METHODS

### Subjects

Five of the seven adult psychiatric wards comprising the hospital participated. These included the admissions ward (ADM), the forensic ward (FOR), two other locked wards (L1 and L2), and one open ward (OP). In addition, patients in a community support program were invited to participate. Of the two wards not surveyed, one contained only patients who were not able to respond to the questionnaire; staff on the other ward declined to participate in the study. On each ward surveyed the psychologist identified all patients who might be willing and able to respond to the patient ques-

tionnaire. All such patients were directly invited, by a staff member they knew, to participate in the study. Those who agreed signed a consent form and gave written (when possible) or verbal responses to the patient questionnaire. One staff member on each ward filled out behavior rating scales for each participating patient on that ward.

Of the 163 patients on the wards surveyed at the time of the study, a total of 70 patients (43%), 27 females and 43 males, responded to the DES. Their mean age was 35.57 (S.D. 9.56, range 18 - 60).

### Measures

The measure of dissociative symptoms was Bernstein and Putnam's (1986) Dissociative Experiences Scale (DES), a 28-item, visual analog, self-report questionnaire. A number of studies have documented the reliability and validity of this scale (Bernstein & Putnam, 1986; Carlson et al., 1990).

The patient behavior rating scale was the Modified Overt Aggression Scale (MOAS) (Kay et al., 1988) with an additional question in parallel format about sexual aggression (a form of aggressive behavior omitted from the MOAS) and a further series of questions about behaviors such as food refusal, demanding extra attention, encouraging non-compliance in other patients, seizures, unpredictable behavior, taking advantage of other patients, and staff splitting. Since the psychometric properties of the MOAS have already been investigated (Kay et al., 1988), we tested the Pearson *r* between the original MOAS and the DES, as well as the Pearson *r* between the DES and the expanded MOAS (MOAS plus question on sexual aggression) and between the DES and the whole patient behavior rating scale.

### Results

The mean DES score of the 163 respondents was 21.55 (S.D. 18.44, range 0 - 73.75). Figure 1 shows the distribution of patient DES scores compared to a group of normal sub-

TABLE 1  
Subjects Responding

Ward	*Census	Number Responding	Percent Responding
ADM	38	18	47.4
OP	31	17	54.8
L1	27	22	81.5
L2	23	7	30.4
FOR	17	5	20.4
CS	**27	1	3.7
All	163	70	42.9

\* Includes all patients assigned to ward during survey.  
 \*\* Includes only patients whose case managers were willing to contact them for the study, and who had not already been approached via another ward.

TABLE 2  
Elevated DES Scores Among Respondents

Population	N	DES > 30		DES > 45		
		% of Sample	% of Census	N	% of Sample	% of Census
ADM	6	33.3	15.8	2	11.1	5.3
OP	6	35.3	19.4	2	11.8	6.5
L1	8	36.4	29.6	5	22.7	18.5
L2	1	14.3	4.3	1	14.3	4.3
FOR	0	0	0	0	0	0
CS	0	0	0	0	0	0
Female	10	37.0		6	22.2	
Male	11	25.6		4	9.3	
Total	21	30.0	12.9	10	14.3	6.1

jects from the NIMH DES data base. The mean score for the normal subjects was 9.02 (S.D. 7.56, range .18-48.57). Table 1 shows the percentages of the population responding and the breakdown by ward.

Nearly a third (30%) of those responding to the DES had scores of 30 or above, and 14.3% of those responding had scores greater than 45. Table 2 shows the breakdown by ward and by gender.

The Pearson  $r$  for all respondents between our patient behavior rating scale and the DES was .27,  $p < .05$ . Similar correlations were obtained for this population between the EMOAS and the DES ( $r = .23$ ,  $p < .05$ ) and between the original MOAS and the DES ( $r = .23$ ,  $p < .05$ ).

As Table 3 shows, the relationship between the DES and the behavior ratings varied widely from ward to ward. One extreme is represented by one of the locked wards (L2), on the one hand, with positive correlations of .85 to .91, all  $p < .01$ , between the DES and the MOAS, EMOAS, and complete patient behavior rating scale. On the other hand, the open ward (OP), had a negative correlation of -.45 between the MOAS and the DES. On this ward, correlations between the DES and the EMOAS and between the DES and the complete patient behavior rating scale were also negative but not statistically significant. When subjects were dichotomized by gender, positive correlations between the DES and the

behavior rating scales were small and not significant for males. For the females, however, positive correlations between the

FIGURE 1

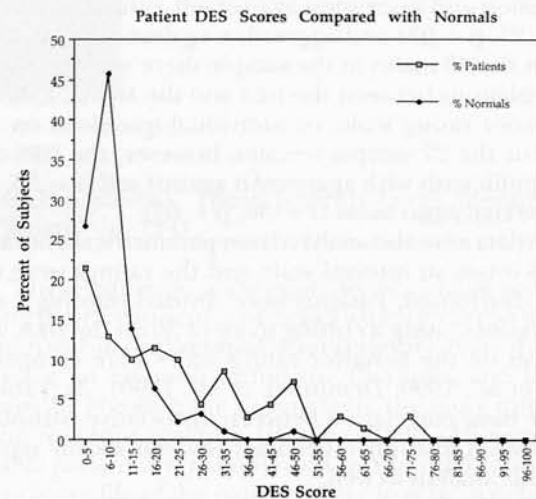


TABLE 3  
Correlations Between DES Scores and Behavior Ratings

Population	MOAS	Expanded MOAS	Total Troublesome Behavior
ADM	ns	ns	ns
OP	.45*	ns	ns
L1	.41*	ns	.44*
L2	.91**	.91**	.85**
FOR	ns	ns	ns
CS	-	-	-
All female (N = 27)	ns	.38*	.40*
All male (N = 43)	ns	ns	ns
Total both sexes	.23*	.23*	.27*

\* $p < .05$       \* $p < .01$

\* Includes all patients assigned to ward during survey.

\*\* Includes only patients whose case managers were willing to contact them for the study, and who had not already been approached via another ward.

TABLE 4  
Median Scores on Patient Rating Scales for Patients With High (>30) and Low (<30) Scores on the Dissociative Experiences Scale

Sample	MOAS	Scale EMOAS	Troublesome Behavior
<b>Males</b>			
High DES (N = 11)	2*	4*	7
Low DES (N = 32)	0*	0*	1.5
<b>Females</b>			
High DES (N = 10)	1	2	5
Low DES (N = 17)	1	1	3
<b>Total</b>			
High DES (N = 21)	1*	3*	6*
Low DES (N = 49)	0*	0*	2*

\* Kruskal-Wallis ANOVA shows patient behavior scores of High and Low DES patients are significantly different from one another  $p < .05$ .



DES and the EMOAS ( $r = .38, p < .05$ ) and between the DES and the complete patient behavior rating scale ( $r = .40, p < .05$ ) were statistically significant.

Item analysis of the EMOAS showed that for the sample as a whole, the DES correlated with physical aggression (sexual aggression and aggression against self, others, and property) ( $r = .23, p < .05$ ) and aggression against self ( $r = .26, p < .05$ ). For the 43 males in the sample there were no significant correlations between the DES and the MOAS, EMOAS, total behavior rating scale, or individual questions on the EMOAS. For the 27 sample females, however, the DES correlated significantly with aggression against self ( $r = .33, p < .05$ ) and sexual aggression ( $r = .36, p < .05$ ).

These data were also analyzed non-parametrically because the MOAS is not an interval scale and the ratings were not normally distributed. Patients were divided into high and low dissociators, using a cutting score of 30 on the DES, and their scores on the behavior rating scales were compared (Carlson et al., 1990; Demitrack et al., 1990). As Table 4 shows, the basic correlation between dissociative pathology and aggressive, disruptive behavior was statistically significant for this analysis as well.

## DISCUSSION

If one assumes that no patients who refused or were unable to respond to the DES would have scored over 30, one can estimate conservatively that 13.9% of the patients on the wards surveyed are likely to manifest clinically significant dissociative pathology. If one assumes, however, that respondents are representative of their wards in the distribution of dissociative symptoms, the estimated prevalence of clinically significant dissociative pathology rises to 30%. The actual percentage probably lies somewhere between these two estimates.

In either case, the prevalence of high DES scores indicates that a systematic attempt to address dissociative pathology as part of routine diagnosis and treatment planning could benefit a substantial number of patients. The demonstrated link between severity of dissociative symptoms and aggressive and disruptive behavior in the hospital suggests further benefits of identifying and treating dissociative pathology. The gender disparities noted in this study cannot be explained by data available to the authors. Since it is likely that not all patients with DES scores over 30 have MPD, there is a need for more extensive research on the treatment of non-MPD dissociative disorders.

The substantial negative correlation between the DES and the behavior rating scales on the unlocked ward indicates that patient selection, environment, or both, influence the relationship between dissociative pathology and aggressive behavior. Further investigation is needed to identify the factors which enable dissociative patients to avoid aggressive behavior in certain hospital settings. ■

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