

Frequency of Dissociative Disorders Among Psychiatric Inpatients in a Turkish University Clinic

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Objective: The aim of this study was to determine the rate of dissociative disorders among psychiatric inpatients in a university clinic in Turkey. **Method:** The Dissociative Experiences Scale was used to screen 166 consecutive inpatients admitted to the psychiatry clinic of a university hospital. The patients who had scores higher than 30 were matched for age and gender with 19 of the patients who scored below 10 on the scale. The patients in both groups were then interviewed with the Dissociative Disorders Interview Schedule by interviewers who were blind to their diagnoses and scores on the Dissociative Experiences Scale. Patients who were diagnosed as having a dissociative disorder according to the Dissociative Disorders Interview Schedule were then interviewed by a clinician. **Results:** Twenty-four (14.5%) of the 166 patients had a score higher than 30 on the Dissociative Experiences Scale; 17 patients (10.2%) were diagnosed as having a dissociative disorder according to the Dissociative Disorders Interview Schedule. Nine patients (5.4%) had clinically confirmed dissociative identity disorder. **Conclusions:** A considerable proportion of the psychiatric inpatients in a Turkish university psychiatry clinic had dissociative disorder. Clinicians who work in general psychiatric inpatient units should be alert for chronic complex dissociative disorders.

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Dissociative disorders were first officially classified as a separate diagnostic group in DSM-III. Until the last decade, no standardized instrument had been designed to yield uniform diagnoses of dissociative disorders. Structured diagnostic interviews developed for other psychiatric categories did not include assessment of dissociative disorders. The development of objective screening instruments (1, 2) and structured interviews (3, 4) filled this gap and promoted empirical research leading to a change in opinions regarding the relevance of dissociative disorders in psychiatry.

Dissociative identity disorder (DSM-IV), also known as multiple personality disorder, has been the most extensively studied dissociative disorder in the last decade (5, 6). It is considered the most severe manifestation of dissociative psychopathology that is closely related to child abuse (7). There is growing interest in this previously neglected diagnostic category among clinicians and researchers in several countries (8–13). Studies conducted with standardized assessment measures in

North America (14), The Netherlands (15), and Turkey (16) reported similar symptom profiles, supporting cross-cultural consistency of the disorder.

Dissociative symptoms have traditionally been considered quite common in Turkey, especially in emergency psychiatric wards and emergency units of general hospitals (17–19). Dissociative states were usually conceived of as acute and self-limited clinical conditions that tend to be recurrent; an underlying, chronic, complex dissociative psychopathology was never taken into consideration. Dissociative states have been linked to developmental conditions characterized by restriction, oppression, neglect, and even hostile rejection in the family of origin (19–21); however, the relation to childhood traumata, especially sexual and physical abuse, was not included as part of today's trauma paradigm (22). Consequently, the direct traumatic origins of current symptoms were not taken into consideration in the psychotherapeutic treatment of these patients (23–25).

In studies using standardized instruments, we found rates of dissociative identity disorder of 3.9% among psychiatric outpatients (26) and 0.4% in the general population in Turkey (27). We also found that dissociative symptoms are far from rare in studies conducted among nonclinical populations in Turkey (27–29).

In the present study, we attempted to determine the rate of dissociative disorders in psychiatric inpatients in Turkey using standardized assessment instruments. To

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our knowledge, this is the first study scanning dissociative identity disorder among psychiatric inpatients in our country. We also attempted to determine the differences between patients with the diagnosis of dissociative disorder and those who reported few dissociative symptoms. An additional reason for using such a comparison group and interviewing the two groups in a blind fashion was to eliminate bias in the assessment of these patients. To eliminate any false positive findings, all patients given the diagnosis of a dissociative disorder according to results of the structured interview were evaluated by a clinician. Additionally, information about the frequency of childhood abuse, suicide attempts, and self-mutilative behavior was gathered by using a self-report questionnaire; details of related results will be published elsewhere.

METHOD

Subjects

All patients admitted to two 30-bed general psychiatric inpatient wards at the Istanbul Medical Faculty Hospital over a 7-month period (November 1, 1994, to May 31, 1995) were considered for participation in the study. Patients who had previously been diagnosed as having a dissociative disorder were excluded from the study. The patients who agreed to participate in the study provided written informed consent after the study procedures had been fully explained. All patients were approached for the study if their treating physician felt that they could give informed consent and there were no other clinical limitations on their participation. Some of the patients were allowed to stabilize for 1 to 2 weeks before being asked to give informed consent. The comparison subjects were drawn from the same patient population.

Instruments

1. *Dissociative Experiences Scale.* The Dissociative Experiences Scale (1) is a 28-item self-report instrument. It is not a diagnostic tool but serves as a screening device for chronic dissociative disorders. Possible scores range from 0 to 100. Median scores on this scale have been shown to differentiate patients with a chronic dissociative disorder from patients with other psychiatric conditions (1, 30). The Turkish version of the scale has reliability and validity (31) as high as those of its original form.

2. *Dissociative Disorders Interview Schedule.* The Dissociative Disorders Interview Schedule (3) is a structured interview consisting of 131 items. It is used to make DSM-III-R diagnoses of somatization disorder, major depressive episode, borderline personality disorder, and all the dissociative disorders. This schedule also inquires about childhood physical and sexual abuse and a variety of features associated with dissociative identity disorder, including 11 Schneiderian symptoms, 16 secondary features of dissociative identity disorder, and 16 extrasensory experiences. Two items inquiring about childhood emotional abuse and neglect that are not included in the English form of the schedule were added to the Turkish version. The schedule has an overall interrater reliability of 0.68 (kappa), a sensitivity of 90%, and a specificity of 100% for the diagnosis of dissociative identity disorder (11). Information on the validity and reliability of the Turkish version has been reported elsewhere (16, 32).

Procedure

The study consisted of three phases. In the first phase, all patients were asked to complete the Dissociative Experiences Scale. They also completed a self-report questionnaire gathering information on child-

hood abuse and some psychiatric symptoms as part of a concurrent study. Three psychiatry residents (T.Ö., M.Y., and E.K.) administered the scale to the patients of their own gender.

In the second phase of the study, all subjects who had scores higher than 30 on the Dissociative Experiences Scale were matched for age and gender with 19 of the patients who scored below 10 on the scale. The Dissociative Disorders Interview Schedule was administered to patients in both groups. The interviewer was blind to the patients' diagnoses and Dissociative Experiences Scale scores. All structured interviews were conducted by two of us (H.T. and L.İ.Y.), both of whom had extensive experience using this instrument before the initiation of the study.

In the third phase of the study, all subjects who were diagnosed as having a dissociative disorder according to the Dissociative Disorders Interview Schedule were interviewed for clinical confirmation. Personality switches were observed at least three times in patients who were diagnosed as having dissociative identity disorder. Because we were all working at the same institution, it was not possible to keep the clinician in the third phase (H.T.) blind to the data obtained during the second phase. One of us (V.Ş.), a psychiatrist and director of the Dissociative Disorders Program and the Clinical Psychotherapy Unit, confirmed all of the clinical diagnoses either by direct consultation or supervision.

Data Analysis

Subjects who completed the Dissociative Experiences Scale were compared with those who did not complete the scale to determine whether these two groups differed in gender or age. The frequency of dissociative disorders was calculated on the basis of the number of subjects who received a confirming clinical diagnosis from a clinician. Characteristics of patients with diagnoses of a dissociative disorder were compared with those of patients with no dissociative disorder. Student's two-tailed *t* tests were used to compare ordinal data. Chi-square analyses were used to compare nominal data. Bonferroni correction for multiple comparisons was used.

RESULTS

During the research period, 261 consecutive patients were admitted to the inpatient wards. Twenty patients were excluded for the following reasons: six had been previously diagnosed as having dissociative identity disorder, six had mental retardation, and eight were illiterate. Of the 241 remaining patients, 166 (68.9%) completed the questionnaires (63.6% of all admissions). The reasons for not completing the questionnaires included being hospitalized for too short a time, refusal to participate, or being too psychotic to be invited.

There was no significant difference in the ages of the patients who did not participate (mean=31.6 years, SD=11.3) and those patients who did (mean=32.1 years, SD=12.0) ($t=0.33$, $df=231$, $p>0.05$). Twenty-one (8.7%) of the 241 patients were younger than 18. Women made up 58.4% ($N=97$) of those who completed the questionnaires and 53.3% ($N=40$) of those who did not complete them; this difference was not significant ($\chi^2=1.25$, $df=2$, $p>0.05$). The age range of the participating patients was 13–70 years. There was no significant difference in age between women (mean=32.0, SD=12.2) and men (mean=32.3, SD=11.8) ($t=0.16$, $df=164$, $p>0.05$).

The mean Dissociative Experiences Scale rating of the original 166 patients was 17.8 (SD=14.9, range=0.0–77.9, median=14.6). Twenty-four (14.5%) of the 166

TABLE 1. Relation of Dissociative Disorder Diagnosis Made With Dissociative Disorders Interview Schedule to Scores on Dissociative Experiences Scale for 40 Psychiatric Inpatients^a

Group	Dissociative Disorder Present According to Dissociative Disorders Interview Schedule		
	Yes (N=17)	No (N=23)	Total (N=40)
Patients with Dissociative Experiences Scale score >30 (N=21)	17	4	21
Patients with Dissociative Experiences Scale score <10 (N=19)	0	19	19

^aYates-corrected $\chi^2=26.65$, $df=1$, $p<0.00001$.

TABLE 2. Main Symptom Cluster Scores on the Dissociative Disorders Interview Schedule of Psychiatric Inpatients With or Without Diagnoses of Dissociative Disorder^a

Variable	Patients With Dissociative Disorder (N=17)		Patients Without Dissociative Disorder (N=19)		Student's t Test	
	Mean	SD	Mean	SD	t (df=34)	p
Symptom cluster						
Secondary features of dissociative identity disorder	9.4	3.8	0.8	1.1	11.28	<0.001
Extrasensory perceptions	4.5	2.3	1.3	1.7	4.74	<0.001
Schneiderian symptoms	6.4	2.8	1.6	2.0	5.99	<0.001
Borderline personality disorder criteria	5.6	2.1	1.0	1.1	8.15	<0.001
Somatic complaints	10.5	4.1	1.7	2.2	8.14	<0.001
Dissociative Experiences Scale score	48.3	14.7	5.0	2.8	12.60	<0.001
Age (years)	24.7	11.6	29.4	8.7	1.37	n.s.

^aPatients with dissociative disorder had scores greater than 30 on the Dissociative Experiences Scale and were given the diagnosis on the basis of the Dissociative Disorders Interview Schedule; patients without dissociative disorder had scores less than 10 on the Dissociative Experiences Scale.

patients had a score higher than 30, and 56 (33.7%) had a score higher than 20. Women (mean=19.7, SD=16.9) had a higher score than men (mean=15.0, SD=11.0) ($t=2.04$, $df=164$, $p<0.05$). Age correlated negatively with scale score ($r=-0.27$, $N=166$, $p<0.001$). Six of the patients with a score higher than 30 were men and 18 were women. However, there was no difference in gender between patients with a score higher than 30 and those with a score of 30 or lower ($\chi^2=3.17$, $df=1$, $p>0.05$). Patients with scores above 30 (mean age=27.0, SD=11.4) were younger than those with scores of 30 or lower (mean age=33.0, SD=12.0) ($t=2.28$, $df=164$, $p<0.05$).

Twenty-one of the 24 patients with scores above 30 could be evaluated with the Dissociative Disorders Interview Schedule. Two patients were hospitalized for too short a period, and one refused to participate in the interview. This sole refusing patient told the interviewer that he was deeply affected by the content of the Dissociative Experiences Scale and was afraid that a further evaluation "might elicit something" in him.

Seventeen of the 21 patients with Dissociative Experiences Scale scores above 30 were diagnosed as having a dissociative disorder according to the Dissociative Disorders Interview Schedule. The remaining four pa-

tients had other diagnoses: one had posttraumatic stress disorder (PTSD) and three had schizophrenic disorder. None of the patients with Dissociative Experiences Scale scores below 10 had the diagnosis of a dissociative disorder (table 1). Sensitivity and specificity were 100% and 83%, respectively, positive predictive power was 81%, and negative predictive power was 100%.

Eleven (eight women and three men) of the 17 patients with a dissociative disorder had the diagnosis of dissociative identity disorder according to the Dissociative Disorders Interview Schedule. The remaining six patients were diagnosed as having dissociative disorder not otherwise specified. Dissociative identity disorder and dissociative disorder not otherwise specified were consid-

ered supraordinate diagnoses. Any patient who met criteria for dissociative amnesia, dissociative fugue, or depersonalization disorder and also met criteria for dissociative identity disorder or dissociative disorder not otherwise specified received the overall diagnosis of either dissociative identity disorder or dissociative disorder not otherwise specified.

Nine patients (seven women and two men) were diagnosed as having dissociative identity disorder by clinical examination. The remaining eight patients were diagnosed as having dissociative disorder not otherwise specified. In six of these patients, some personality states were observed repeatedly, but

they were not considered sufficiently distinct and separate to diagnose a dissociative identity disorder at this stage of the evaluation. A 45-year-old male patient from this group had the diagnosis of dissociative identity disorder according to the Dissociative Disorders Interview Schedule, but he declared that he did not want his alter personalities to be evaluated.

Findings from the main symptom clusters of the Dissociative Disorders Interview Schedule and the Dissociative Experiences Scale scores for the two groups are presented in table 2. The patients with a dissociative disorder had significantly higher scores in all main symptom clusters and on the Dissociative Experiences Scale.

Table 3 indicates the Dissociative Disorders Interview Schedule diagnoses that the patients in both groups received. All patients in the dissociative disorders group met DSM-III-R criteria for a dissociative disorder. Most of them had comorbid psychiatric disorders. There were high rates of comorbid borderline personality disorder, current or past episode of major depression, and somatization disorder.

Table 4 shows some findings concerning mental health history derived from the Dissociative Disorders Interview Schedule. Significantly more patients in the dissociative

disorders group than in the comparison group reported physical abuse and sexual abuse (table 4). More of the patients with dissociative disorder than patients in the comparison group also reported emotional abuse.

Sixteen of the 17 patients in the dissociative disorders group had contacted a psychiatrist previously. The mean interval between their first psychiatric contact and the study interview was 4.6 years (SD=4.6, range=3 months–15 years). Seven of these patients had been hospitalized at least once (range=1–6 times). Nine had been given diagnoses of depression, one mania, two schizophrenic disorder, and two anxiety disorder. Eleven had been prescribed psychotropic medication. Two of the subjects had received ECT; nine had received antipsychotic medication, 13 had received an antidepressant, and two had received lithium. Fourteen of the subjects said that they had received ineffective treatment at some time. Only five of the subjects had received courses of psychotherapy. For all but one of them the psychotherapeutic intervention ceased in fewer than 10 sessions. The only exception was an incest victim with the diagnosis of depressive disorder who had received both biological and psychotherapeutic treatment for 6 years; her care was covered by a women's shelter in Istanbul (*Mor Cati* [Purple Roof]).

DISCUSSION

Of all consecutively admitted patients to an inpatient psychiatric unit, 63.6% could be recruited for the present study. This rate is similar to those of Ross et al. (33) and Saxe et al. (34) and higher than those of Latz et al. (35) and Modestin et al. (36). On the basis of our findings in the current study, the conservative estimate of the frequency of new cases of dissociative disorders among psychiatric inpatients is 10.2%, including 5.4% with dissociative identity disorder. These are the percentages of subjects who received the diagnosis from both the Dissociative Disorders Interview Schedule and the study clinician.

TABLE 3. Dissociative Disorders Interview Schedule Diagnoses of Psychiatric Inpatients With or Without Diagnoses of Dissociative Disorder^a

Diagnosis	Patients With Dissociative Disorder (N=17)		Patients Without Dissociative Disorder (N=19)		Chi-Square Analysis ^b	
	N	%	N	%	χ^2 (df=1)	p
Major depression (current or past)	14	82.4	9	47.4	4.76	n.s.
Borderline personality disorder	12	70.6	0	0.0	20.12	<0.00005
Somatization disorder	6	35.3	0	0.0	17.70	<0.00005
Any comorbid disorder	16	94.1	9	47.4	9.24	<0.005
Dissociative amnesia	14	82.4	0	0.0	25.60	<0.00001
Depersonalization disorder	14	82.4	1	5.3	21.94	<0.00001
Dissociative fugue	5	29.4	0	0.0	— ^c	n.s.
Dissociative disorder not otherwise specified	3	17.6	0	0.0	— ^c	n.s.
Dissociative identity disorder	14	82.4	0	0.0	25.60	<0.00001

^aPatients with dissociative disorder had scores greater than 30 on the Dissociative Experiences Scale and were given the diagnosis on the basis of the Dissociative Disorders Interview Schedule; patients without dissociative disorder had scores less than 10 on the Dissociative Experiences Scale.

^bThe adapted level of alpha is $p=0.005$ when the Bonferroni method is applied.

^cFisher's exact test.

TABLE 4. Gender and Dissociative Disorders Interview Schedule Mental Health History Items of Psychiatric Inpatients With or Without Diagnoses of Dissociative Disorder^a

Variable	Patients With Dissociative Disorder (N=17)		Patients Without Dissociative Disorder (N=19)		Chi-Square Analysis ^b	
	N	%	N	%	χ^2 (df=1)	p
Gender (female)	13	76.5	13	68.4	0.28	n.s.
Dissociative Disorders Interview Schedule mental health history items						
Self-mutilation	15	88.2	4	21.1	16.15	<0.0001
Suicide attempt	14	82.4	6	31.6	9.36	n.s.
Substance abuse	5	29.4	0	0.0	— ^c	n.s.
Headache	14	82.4	4	21.1	13.49	n.s.
Trance	17	100.0	6	31.6	18.20	<0.00005
Childhood imaginary companionship	5	29.4	0	0.0	— ^c	n.s.
Somnambulism	5	29.4	2	10.5	— ^c	n.s.
Sexual abuse	10	58.8	1	5.3	13.20	<0.0005
Sexual and/or physical abuse	14	82.4	5	26.3	11.30	<0.001
Physical abuse	14	82.4	4	21.1	15.35	<0.0001
Emotional abuse	12	70.6	2	10.5	16.70	<0.00005
Neglect	10	58.8	4	21.1	7.20	n.s.
Any type of abuse	15	88.2	6	31.6	11.85	<0.001

^aPatients with dissociative disorder had scores greater than 30 on the Dissociative Experiences Scale and were given the diagnosis on the basis of the Dissociative Disorders Interview Schedule; patients without dissociative disorder had scores less than 10 on the Dissociative Experiences Scale.

^bThe adapted level of alpha is $p=0.003$ when the Bonferroni method is applied.

^cFisher's exact test.

To our knowledge, there are few studies using a structured interview to determine the rate of dissociative disorders among psychiatric inpatients (13, 33–36). Table 5 presents the results from several studies. The rates in our study are in agreement with those of studies in North America and Norway despite the higher cutoff score in our first phase. A study on a Swiss sample (36) found lower rates. Whether this difference depends on

TABLE 5. Studies of Dissociative Disorder Among Psychiatric Inpatients

Study	Number of Subjects	Diagnostic Instrument	Cutoff on Dissociative Experiences Scale	Rate of Dissociative Identity Disorder (%)	Rate of Dissociative Disorder (%)	Dissociative Experiences Scale Score		
						Mean	SD	Patients With Score >30 (%)
Present study	166	Dissociative Disorders Interview Schedule	30	5.4 ^a	10.2 ^a	17.8	14.9	14.5
Modestin et al. (36)	207	Dissociative Disorders Interview Schedule	20	0.4	5.0	13.7	13.5	12.0
Knudsen et al. (13)	101	Structured Clinical Interview for Dissociative Disorders	30	3.0	6.0	— ^b	— ^b	15.0
Latz et al. (35)	176 ^c	Dissociative Disorders Interview Schedule	None	12.0	— ^b	— ^b	— ^b	34.7
Saxe et al. (34)	110	Dissociative Disorders Interview Schedule	25	4.0	15.0	— ^b	— ^b	— ^b
Ross et al. (33)	299	Dissociative Disorders Interview Schedule	20	3.3 ^a	20.7	14.6	14.2	15.4

^aClinically confirmed diagnosis.^bData not given.^cSubjects included only females.

cultural influences or is caused by different inpatient sample characteristics is not yet known.

Most of the patients with dissociative disorders in our study group had comorbid psychiatric disorders according to the structured interview. There were high rates of comorbid borderline personality disorder, current or past episode of major depression, and somatization disorder. Approximately two-thirds of our study group met criteria for borderline personality disorder. This finding is in agreement with that of Saxe et al. (34). However, in a case series of mostly outpatients with dissociative identity disorder (16), we found that the rate of borderline personality disorder was much lower, suggesting that patients fitting these criteria are hospitalized more frequently.

It is not uncommon for patients with dissociative identity disorder to meet DSM-IV criteria for several other disorders at the same time (14–16). Although dissociative identity disorder and borderline personality disorder have their own diagnostic features, there is a wide phenomenological overlap. On the other hand, Modestin et al. (36) determined that Dissociative Experiences Scale scores correlated positively with a number of features of practically all personality disorder subtypes.

Significantly higher rates of childhood traumatic experiences were found in our patients with a dissociative disorder than in the comparison group. This finding supports the notion that traumatic childhood experiences play a major role in the development of dissociative disorders (7, 22). Saxe et al. (34) found that PTSD was also frequent among inpatients with a dissociative disorder. Self-destructive behavior such as self-mutilation, suicide attempts, and substance abuse were also common in our dissociative disorder group. This type of behavior also has been linked to childhood trauma (37).

The Dissociative Experiences Scale ratings of our in-

patients are similar to those obtained in comparable study groups in North America (33–35, 38) and Europe (13, 37). Among patients with Dissociative Experiences Scale scores higher than 30, 81.0% of evaluated patients suffered from a clinically confirmed, chronic, complex dissociative disorder; this finding confirms that high scores on the scale are highly suggestive of a dissociative disorder.

In our study, women had a higher mean Dissociative Experiences Scale score than men. That Dissociative Experiences Scale scores of men and women do not differ in the general population (27, 39) and among patients with different psychiatric disorders (35) suggests that women with dissociative symptoms are hospitalized more frequently. Results reported by Chu and Dill (38) and Latz et al. (35) support this idea. Because these studies had few (38) or no (35) male subjects, their results are not comparable with ours. Some of the previous studies (40, 41) pointed out that childhood trauma are more common among women.

CONCLUSIONS

There is accumulating evidence suggesting that dissociative disorders are frequent among psychiatric inpatients. We found that approximately 10% of the psychiatric patients in a Turkish university hospital met the criteria for a chronic complex dissociative disorder. Half of these patients met the criteria for dissociative identity disorder. Patients who have chronic complex dissociative disorder are very likely to fit the criteria for borderline personality disorder, somatization disorder, and at least one major episode of major depression as well. These individuals are also very likely to have had a history of childhood abuse and neglect. They present a challenge for psychiatrists working in inpatient units. Quasi-psychotic posttraumatic symptoms of these pa-

tients can easily lead to diagnostic errors. An accurate diagnosis is crucial for better intervention and management. Dissociative disorders should be investigated routinely in psychiatric assessments. The use of structured instruments is helpful for this purpose.

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