

Dissociative Disorders in Turkish Inpatients With Conversion Disorder

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The aim of our study was to determine the frequency of dissociative disorders (DDs) among inpatients with conversion disorder (CD) in a university clinic settled in Eastern Turkey. During a period of 24 months, 59 consecutively admitted adult CD patients were screened with the Dissociative Experience Scale (DES). Patients who scored above 30 (DDs group) did not differ by age or gender from a group of inpatients who scored below 10 on the scale (comparison group). All patients in the two groups were then interviewed in a blind manner using the Dissociative Disorders Interview Schedule (DDIS) and Structured Interview for DSM-IV Dissociative Disorders (SCID-D). According to the SCID-D, 18 of 59 patients (30.5%)

received a diagnosis of dissociative disorder; nine of these 18 patients (50%) were diagnosed as having dissociative identity disorder, eight (44.4%) were diagnosed as having dissociative disorder not otherwise specified (NOS), and one (5.6%) was diagnosed as having dissociative amnesia. Accordingly to the DDIS, borderline personality disorder was frequent in the DDs group, and all of the patients in the DDs group reported sexual abuse and neglect during childhood, latency, or adolescence. A high proportion of CD patients have significant dissociative pathology. The proper diagnosis of these patients has important implications for their clinical course.

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THE CONCEPT OF hysteria has undergone repeated changes.¹ In DSM-I² dissociative reactions were classified as a subtype of conversion hysteria. In DSM-II³ conversion and dissociative reactions were redefined as subtypes of hysterical neurosis. This development is reflected in the DSM-III,⁴ which subsumes the conversion disorders (CDs) under the category of the somatoform disorders, whereas the dissociative disorders (DDs) were classified separately in an independent category. Their essential feature is defined by the DSM-IV⁵ as a disruption in the usually integrated functions of consciousness, memory, identity, or perception of the environment.

Dissociation and conversion have been widely related to traumatic events, in particular to childhood abuse⁶⁻⁹; meanwhile, dissociation and conversion are based on the same psychological mechanism.¹⁰ Therefore, a symptomatological overlap between CD and DD seems likely. From a phenomenological point of view, it might therefore be reasonable to consider a reclassification of the CDs with the DDs.^{10,11} This has been accomplished in the ICD-10,¹² and there seems to be enough evidence to justify a parallel development

in the DSM, thus increasing the compatibility of the two systems. Moreover, recent studies have reported a high degree of conversion and somatoform symptoms and disorders in the patients with DD.¹³⁻¹⁶ Spitzer et al.¹⁷ have reported that little is known about dissociation in CDs and that further studies are required to elucidate the association between conversion and dissociation.

The present report attempted to estimate the prevalence of dissociative disorders in CD patients, and to clarify the possible overlap between CD and dissociative symptoms. We measured the frequency of dissociative symptoms in 59 CD inpatients using a previously validated questionnaire. Patients with high levels of dissociative symptoms were further characterized according to the nature and severity of symptoms using structured interviews. We hypothesized that a subgroup of patients with CD would exhibit clinically significant dissociative symptoms and DDs.

METHOD

Subjects

The study sample was a series of 59 of 73 potential inpatients over 18 years old, both men and women with clinical diagnoses of CD seen in our department between January 1999 and 2001. There were sixty-seven (91.8%) women and six (8.2%) men. All were diagnosed according to the diagnostic criteria of DSM-IV for CD. The research protocol was approved by Ethics Committee of the Firat University Medical Faculty. Written consent to participate in the study was obtained from the subjects after they were thoroughly informed about the research details. Exclusion criteria included an inability to give informed consent or understand the consent form, and the incapacity to participate due to mental retardation or level of education. Patients who had previously been diagnosed as having DD or

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post-traumatic stress disorder, and those with the comorbidity of pseudo-seizure and seizure were excluded from the study. The 17 comparison subjects were drawn from the same patient population. All participants completed the following questionnaires within the 5 days after hospitalization. This is the first study focusing on DDs at Firat Medical Center. Hence the present study was performed under a controlling psychiatrist, with a special interest in dissociative psychopathology (H.T.).

Instruments

The Clinical Interview and Case Evaluation Form is an information form designed specifically for this study. It was completed for each patient and included sociodemographic data, the duration of illness, and the clinical features.

The Dissociative Experience Scale (DES) is a 28-item visual analogue self-response scale of good reliability and validity, that has been repeatedly recommended as a screening test for major dissociative psychopathology. It is not a diagnostic tool but serves as a screening device for chronic DDs. Possible scores range from 0 to 100. Median scores on this scale have been shown to differentiate patients with other psychiatric conditions.^{18,19} A high total score indicates a high level of dissociative experiences.^{20,21} The reliability and validity of Turkish version of the DES is similar to the original version.²² We chose a score of 30 as the cutoff, as this score has proved useful in screening dissociative disorders in Turkey.^{23,24}

The Dissociative Disorders Interview Schedule (DDIS) is a 131-item semistructured interview schedule linked with DSM-III that allows for the diagnosis of DD, somatization disorder, major depressive episode, substance abuse, and borderline personality disorder. The DDIS 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. In this study we used the Turkish version of the DDIS, which is adjusted for DSM-IV.²⁵

The Structured Interview for DSM-IV Dissociative Disorders (SCID-D) is a semistructured diagnostic interview that investigates five DDs according to DSM-IV criteria and also rates symptoms of these five disorders (depersonalization, derealization, amnesia, identity confusion, and identity alteration) and systematically rates the severity of individual symptoms. It has proven utility in confirming known cases of DD, as well as in detecting previously unidentified cases of DD. The reliability and validity of Turkish version of the SCID-D has been demonstrated.²⁶

Study Procedure

The study was conducted in three phases. In the first phase, all participants were asked to complete the DES. They also completed a self-report questionnaire gathering information on childhood abuse and some psychiatric symptoms as part of a concurrent study. Two psychiatry residents (O.G. and A.B.) administered the questionnaire.

All subjects who had scores higher than 30 on the DES did not differ by age or gender when compared with 17 of the patients who scored below 10 on the scale. In the second phase of the study; the DDIS and SCID-D were administered to patients in both groups by two experienced psychiatrists (E.T.

and M.A.). The interviewers were blind to the patients' diagnoses and DES scores.

In the third phase, all patients who were diagnosed as having a DD according to the SCID-D and comparison subjects with DES score less than 10 and without a diagnosis of dissociative disorder were evaluated using a structured interview administered by a clinician (M.K.) who was blind to their clinical diagnoses and all research data for clinical confirmation.

Statistical Analysis

The analysis was performed using SPSS version 9.0 (SPSS Inc, Chicago, IL). The level of significance was set at $P = .05$. Differences between conversion subtypes were compared using analyses of variance (ANOVAs). Student's t test was used for the comparison of parametric values, and chi-square and Yates' correction tests for nonparametric values. All tests used were two-tailed.

RESULTS

During the study period of 2 years, 73 consecutive patients were admitted to the inpatient wards. Fourteen patients were excluded: eight subjects refused to participate when asked after admission of the DES, and six patients could not be interviewed using the DDIS and/or SCID-D because of language barriers. Thus, a total of 59 subjects (80.8%) completed the study. Of these, 55 were female (93.2%) and four male (6.8%).

The mean age was 28.58 ± 8.47 years (range, 18 to 56). There was no significant difference between women and men. The range of DES score of the 59 patients was to 0.0 to 77.3, with a median of 22.41 ($SD = 18.32$). There was no significant difference between DES scores for women and men ($z = 1.168$, $P = .243$). Of the 59 patients with conversion disorders, 26 presented nonepileptic seizure (44.1%), 21 suffered from sensorial symptoms (35.6%), and five (8.4%) had motor symptoms. The remaining seven patients (11.9%) had a combination of at least two CDs (mixed type). For the patients with nonepileptic seizure, the mean DES score was 25.50 ± 16.40 . It was 17.38 ± 13.97 for the subjects with sensorial symptoms, 25.00 ± 28.42 for those with motor symptoms, and 20.57 ± 27.02 for patients with mixed symptoms. No statistically significant difference was found among these scores ($F = 0.83$, $df = 3$, $P = .48$).

Eighteen (30.5%) of the 59 patients had a score higher than 30 (DDs group) and 17 patients (28.8%) had a score less than 10 (comparison group).

The mean DES scores in the DDs group and comparison group were 45.56 ($SD = 14.07$) and 4.71 ($SD = 2.54$), respectively ($t = 40.85$, $P <$

.0001). The mean ages of the two groups were 27.67 ± 8.86 years and 30.82 ± 7.29 years, respectively. There was no difference with respect to age between the DDs group and the comparison group ($t = 3.16, P > .05$).

Sixteen (88.9%) of the dissociative patients were women, whereas this rate was 88.2% ($n = 15$) for the comparison subjects. The difference was not significant ($\chi^2 = 0, df = 1, P = 1$). No significant differences were found between male and female subjects on any variable, and thus male and female subjects were considered together for all data analyses (Table 1).

All patients who scored greater than 30 on the DES met criteria for a DD according to the SCID-D. The most common diagnosis was dissociative identity disorder ($n = 9, 50\%$) followed by DD not otherwise specified (NOS) ($n = 8, 44.4\%$), and dissociative amnesia ($n = 1, 5.6\%$). Among the remaining subjects, one female patient exhibiting amnesia was rehospitalized after discharge. She was diagnosed with multiple personality disorder and amnesia was added to former diagnosis. No patient met the criteria for psychogenic fugue and depersonalization disorder. None of the 17 patients with DES scores below 10 had the diagnosis of DD ($\chi^2 = 35.0, df = 3, P < .0001$). Nine patients (eight women and one man) from the DDs group were diagnosed as having dissociative identity disorder by clinical examination (by blind evaluator, M.K.). The six of 18 subjects (all females) from the DDs group were diagnosed as having DD NOS. Two from the DDs group were interviewed by a blind interviewer, who made a diagnosis of bipolar mood disorder (one female and one male) and cyclothymic disorder (one female).

There were significant differences between the two groups in all of the DDIS subdiagnoses. Of our DDs group patients, 77.8% had comorbid borderline personality disorder, followed by 72.2% with major depression and 33.3% with somatization disorder. Table 2 indicates all of the SCID-D diagnoses and DDIS subdiagnoses for the patients in both groups.

A history of sexual abuse during childhood, latency, or adolescence as assessed by the DDIS was reported by 18 (100%) of the DDs group patients, but only one (5.9%) of the comparison subjects ($\chi^2 = 27.53, df = 1, P < .001$). Of the patients in

the DDs group and the comparison group, 55.6% and 5.9%, respectively, reported physical abuse during early childhood, and a history of childhood trauma ($\chi^2 = 7.84, df = 1, P < .01$) in 72.2% and 11.8% during latency ($\chi^2 = 10.70, df = 1, P < .01$), and in 61.1% and 23.5% during adolescence ($\chi^2 = 3.63, df = 1, P > .05$). In total, 88.9% of the patients in the DDs group and 35.3% of the comparison group reported physical abuse. The histories of sexual abuse, witnessing violence, family chaos, neglect, and separation during childhood, latency, and adolescence as assessed by the DDIS in the two groups are shown in Table 3. This table indicates differences between data obtained by the DDIS.

DISCUSSION

Friedl et al²⁷ have reported that comparative, blind researching using both DDIS and SCID-D in the assessment of DDs is advised. In the present study, both scales were used.

In this study the median score on the DES for DDs group (SCID-D diagnosis) was 22.4. To our knowledge, there is only one study using a structured interview to determine DES scores among CD inpatients.¹⁷ In their study, which did not use the SCID-D and DDIS, Spitzer et al. reported that total DES and its subscales scores were significantly higher in patients with CD compared to those with others psychiatric disorders. The median score of 22.4 on the DES recorded by the CD patients in this study was higher than the median score of 16.6 previously reported by Spitzer et al.

It was noted that pseudoseizure patients showed elevated levels of dissociation.^{9,16,28,29} According to our findings this also seems to apply to other forms of CD. There was no significant difference between DES scores of women and men in this study, in contrast to the results obtained among inpatients³⁰ where women had higher scores than men. DES scores of men and women did also not differ in the general population²⁴ and in subjects with various psychiatric disorders.³¹ However, it is not possible to make a generalization because there were only four male patients versus 55 female patients in the present study.

On the basis of our findings, the conservative estimate of the frequency of new cases of DDS among CD inpatients was 30.5%, including 15.2% with multiple personality disorder. In the other

Table 1. Sociodemographic and Clinical Characteristics of the Dissociative Disorder Group and the Comparison Group

	DDs Group (n = 18)		Comparison Group (n = 17)		t	P	
	n	%	n	%			
Mean age (yr)	27.67 ± 8.86		30.82 ± 7.29		3.16	.519	
DES Scores (± SD)	45.56 ± 14.07		4.71 ± 2.54		40.85	<.0001	
	n	%	n	%	χ^2	df	P
Female	16	88.9	15	88.2	0	1	1
Marital status					0.32	2	.86
Married	14	77.8	13	76.5			
Single	3	16.7	3	17.6			
Widowed	1	5.5	1	5.9			
Education level					1.53	3	.68
Uneducated	2	11.1	3	17.6			
Primary School	14	77.8	11	64.7			
Elementary School	2	11.1	2	11.8			
University	0	0.0	1	5.9			
Occupation					4.94	3	.18
Housewife-unmarried girl	10	55.6	12	70.5			
Official	7	38.9	2	11.8			
Self-employed	1	5.5	1	5.9			
Student	0	0.0	2	11.8			
Economic status					0.24	2	.99
Poor	10	55.6	9	52.9			
Average	7	38.9	7	41.2			
Well	1	5.5	1	5.9			
Living place					0.35	2	.84
Village	5	27.8	5	29.4			
Town	5	27.8	6	35.3			
Urban	8	44.4	6	35.3			
Distribution of the subtypes					2.54	3	.48
Nonepileptic seizure	11	61.1	6	35.3			
Sensorial symptom	3	16.7	4	23.5			
Motor symptom	2	11.1	3	17.5			
Mixed type	2	11.1	4	23.5			

words, 30.5% of CD patients had elevated DES scores, and all of these patients had a diagnosis of DD according to the SCID-D. This indicates that dissociative symptoms may commonly coexist with symptoms of CD. These are the percentages

of subjects who received the diagnosis from both the DES and SCID-D. This was the minimum number because patients with a DES score below the cutoff point were excluded. On the other hand, there are patients with DD, and even with multiple

Table 2. SCID-D Diagnoses and DDIS Subdiagnoses in the Dissociative Disorder and Control Groups

	DDs Group (n = 18)		Comparison Group (n = 17)		χ^2	df	P
	n	%	n	%			
SCID-D diagnoses					35.00	3	<.0001
Dissociative identify disorder	9	50	0	0			
DD NOS	8	44.5	0	0			
Dissociative amnesia	1	5.5	0	0			
Any comorbid dissociative disorder	18	100	0	0			
DDIS diagnoses							
Major depression (current or past)	13	72.2	6	35.3	3.43	1	>.064
Somatization disorder	6	33.3	1	5.9	2.58	1	>.11
Borderline personality disorder	14	77.8	1	5.9	15.63	1	<.001
Substance abuse	1	5.6	0	0	0	1	1

Table 3. Childhood Trauma Histories of the Patients

	DDs Group		Comparison Group		χ^2	P
	n	%	n	%		
Physical abuse	16	88.9	6	35.3	8.58	<.01
During early childhood (0-6 yr)	10	55.6	1	5.9	7.83	<.01
During latency (7-12 yr)	13	72.2	2	11.8	10.69	<.01
During adolescence (13-18 yr)	11	61.1	4	23.5	3.62	>.05
Sexual abuse	18	100.0	1	5.9	27.53	<.001
During early childhood	4	22.2	0	0.0	2.35	>.05
During latency	6	33.3	0	0.0	4.69	<.05
During adolescence	11	61.1	1	5.9	9.51	<.01
Witnessing violence	14	80.1	7	41.2	3.47	>.05
During early childhood	7	38.9	1	5.9	3.62	>.05
During latency	10	55.6	2	11.8	5.62	<.05
During adolescence	10	55.6	7	41.2	0.26	>.05
Family chaos	16	88.9	5	29.4	10.52	<.001
During early childhood	13	72.2	2	11.8	10.69	<.001
During latency	14	80.1	3	17.6	10.36	<.001
During adolescence	14	80.1	5	29.4	6.40	<.05
Neglect	18	100.0	4	23.5	18.74	<.001
During early childhood	14	80.1	1	5.9	15.63	<.001
During latency	17	94.4	2	11.8	20.86	<.001
During adolescence	16	88.9	4	23.5	12.69	<.001
Separations	14	80.1	7	41.2	3.47	>.05
During early childhood	8	44.4	2	11.8	3.11	>.05
During latency	5	27.8	3	17.6	0.97	>.05
During adolescence	5	27.8	4	23.5	0.00	>.05

personality disorder, who score less than 20 on the DES.³²

Bipolar affective disorder in two patients and cyclothymic disorder in one patient were diagnosed by a psychiatrist who knew the diagnosis of CD but did not participate in the evaluations in regard to dissociative symptoms. This supports the opinion that patients with DD could be misdiagnosed as having psychosis, schizophrenia, or mood disorder.³²⁻³⁷

All patients with DDs had comorbid psychiatric disorders. Most of these patients also met criteria for major depression (at least at some point in their life), borderline personality disorder, and somatization disorder. The comorbidity between major depression and DDs,^{30,31,37} and between somatization disorder and DDs^{13,15,36,38} have been well documented. A significant comorbidity between DDs and borderline personality has been repeatedly described,^{13,30,35,39-44} and dissociation has even been considered an intrinsic aspect of borderline personality disorder.⁴⁵ Of our dissociative patients 77.8% had comorbid borderline personality disorder, a rate similar to the previously reported rate of 70.6%³⁶ but higher than the 44.4% and 64.2%^{30,33}

reported in previous studies on dissociative inpatients. However, association with other types of personality disorder has been much less studied, and avoidant, obsessive-compulsive, schizotypal, and dependent personality disorder were more frequently in DDs patients.^{36,46,47}

The lower rate of substance abuse among DD patients in Turkey has been reported by Sar et al.²³ and this situation was in agreement with the results of the present study.

In the current report, the diagnosis of multiple personality disorder was made only if the patient met the three DSM-IV criteria for multiple personality disorder and spontaneously exhibited a switch in ego state that was directly observed by at least one member of our research team. In other words, if a patient met all three DSM-IV criteria for multiple personality disorder but state change was not directly observed, the patient was not considered to have a multiple personality disorder. Of the eight patients who received a diagnosis of DD NOS, five met all three criteria for multiple personality disorder, and six responded affirmatively to two of the three criteria and unsure to the third. This suggests that a number of patients who were given a diagnosis of DD

NOS may, upon further examination, meet diagnostic criteria for multiple personality disorder.

A high percentage of childhood traumatic experiences was found in the group of DDs, a finding significantly different from the childhood experiences reported by the comparison group. These data support the notion that traumatic experiences and disruptions in parental care play a major role in the development of dissociative symptoms.^{7,8,16,41,42,48-52} The most frequently reported childhood traumas in our DDs group inpatients were sexual abuse and neglect. Also in a previous study on the general population in Turkey, 56.3% of the probands with a high DES score reported childhood neglect, whereas only 6.3% reported childhood abuse.³⁷ In the present study, these rates are 100% for both neglect and sexual abuse. This situation is probably associated with our inpatient but not outpatient population with CD. In a study among psychiatric inpatients, the rate of neglect and sexual abuse was determined as 100%.³⁹ This is completely in accordance with the results of our study.

Some of the previous studies pointed out that childhood traumas are more common among

women.^{49,52} Tutkun et al.³⁰ demonstrated that among inpatients, women reported physical abuse and neglect more frequently, and women with dissociative symptoms and childhood trauma are hospitalized more frequently. In this study, because of the small number of male patients, we could not reveal such a generalization.

Conclusion

We found that 30.5% of the CD inpatients in our university hospital psychiatry department met the criteria for a diagnosis of DD. Half of these patients met the criteria for multiple personality disorder. On the other hand, these patients are very likely to fit the criteria for borderline personality disorder, somatization disorder, and major depression. Our findings support a possible link between severe childhood trauma, CD, and dissociative pathology. Some limitations need to be mentioned. First, the study group is rather small; therefore our data need to be confirmed in larger samples. Second, psychiatric disorders and personality disorders other than those we determined using DDIS were not established.

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