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An outpatient clinical study of dissociative disorder not otherwise specified

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Abstract

The relatively high prevalence of the diagnosis of dissociative disorder not otherwise specified is frequently considered to be disproportionate. The disproportionate rate of this diagnosis is thought to be related to nosologic and/or diagnostic issues in dissociative identity disorder. We sought to investigate and compare the symptom patterns of these two clinical entities. We conducted a cross-sectional study involving 1314 participants who were screened with the Dissociative Experience Scale (DES) and the Somatoform Dissociation Questionnaire (SDQ). Of the participants, 272 who scored above the cut-off points for the screening questionnaires (DES score > 30 and/or SDQ score > 40 points) were invited to complete a structured interview using the Dissociative Disorders Interview Schedule (DDIS); of this subsample, only 190 participants agreed to participate in the second phase of the study. The mean score for the DES was 18.55 ± 17.23, and the mean score for the SDQ was 30.19 ± 13.32. Of the 190 participants, 167 patients were diagnosed as having a dissociative disorder (87.8%). We found that DD-NOS was the most prevalent category of dissociative disorder.

There was a significantly larger percentage of patients in the DID group than in the DD-NOS group according to secondary features of DID and Schneiderian symptoms. The secondary features of DID and Schneiderian symptoms appeared to be more specific for DID, while no differences were detected between DID and DD-NOS based on most of the items on the SCL 90R. Further longitudinal studies are needed to determine the features that are similar and dissimilar between DD-NOS and DID.

1. Introduction

Epidemiologic studies on dissociative disorders have revealed prevalence rates of above 10% among psychiatric inpatients and outpatients and a rate of 35.7% in patients of emergency services in Turkey [1,2]. According to both clinical and epidemiological studies [1,3–5], the most common diagnosis of the dissociative disorders (DD) in both clinical and non-clinical settings is dissociative disorder not otherwise specified (DD-NOS), with a prevalence rate of approximately 40% [6,7]. The high prevalence rate of DD-NOS is frequently observed as disproportionate for DD in the literature. The relatively high proportion of DDNOS is usually considered to be a consequence of nosologic and/or diagnostic issues related to dissociative identity disorder (DID) [8,9], and this issue hypothetically lies within the boundary DD-NOS and DID [6]. However, DDNOS is a more heterogeneous diagnostic category than DID and requires a clarification of the criteria that define it [6], which is problematic [9]. Proposed reason for the extended period of time needed for a correct diagnosis in DID is the high rate of comorbid non-dissociative symptoms that may mask the core dissociative symptomatology [10]. In this study, we hypothesized that there was no difference between DD-NOS and DID based on clinical symptomatology. We aimed to investigate and compare the symptom patterns of DD-NOS and emerge differences/similarities between DD-NOS and DID based on Schneider's First Rank Symptoms, Secondary Features and Extrasensory Experiences, as well as the Symptom Check List 90 Revised (SCL-90-R).

2. Methods

Our study was conducted among patients who attended our outpatient clinic over the course of nine months

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(01.12.2010–01.09.2011). The study design was cross-sectional in nature, and 2000 participants were taken into consideration naturalistically after obtaining informed consent from the patients and excluding patients who did not meet the appropriate study criteria. Patients were excluded if they met the DSM-IV TR criteria for schizophrenia, schizoaffective disorder, mental retardation, or severe pathology preventing collaboration, organic mental disorders, and physical-handicaps (i.e., being blind). A total of 534 patients were excluded from the study because they met the exclusion criteria. In the first phase of the study, the Dissociative Experience Scale (DES) and the Somatoform Dissociation Questionnaire (SDQ) were given, and participants' phone numbers were collected. A total of 152 patients refused to complete these questionnaires. The remaining participants (n = 1314) were then included from the study. After the screening period, all participants whose test scores were above the cutoff point (DES > 30 and/or SDQ > 40) were invited to engage in a structured interview using the Dissociative Disorders Interview Schedule (DDIS). Of the 1314 participants who completed the DES, there were 272 participants (20.70%) with scores above the cutoff. Although five of the participants refused to complete the SDQ, there were 202 participants (15.43%) whose scores were above the cutoff. In the second phase of the study, we aimed to obtain a total of 272 participants whose test scores were above the cut-off scores for the DES and SDQ but we could reach by phone number 190 of them (190 in 272 participants, 69.8%). In addition, the revised version of the Symptom Check List 90 (SCL-90-R) was given as a Symptom Check List in this phase. In the second phase, the DES score in one case was also above the cutoff point, while the SDQ was not completed during the screening phase. The DDIS was applied by the same resident who was educated by Professor Dr. Vedat SAR in Istanbul University, an expert in dissociative disorders, during the second phase of the study.

3. Assessment instruments

3.1. Sociodemographic form

A brief sociodemographic form was created for this study. The form evaluated the age, education level, psychiatric history of participant and family, first symptoms at the point of initial psychiatric attempt, history of suicide attempt, psychophysiological function, income, marital status, and gender of the participants.

3.2. Cultural questions

In Turkish culture, patients attempt to define psychiatric illness in terms of being effected by 'jinn' cultural form of possession. Because patients often link their psychiatric disorder with jinn, we asked our participants whether they believe in jinn and if they felt that jinn were responsible for their illnesses. *Dissociative experience scale (DES):* The Dissociative Experiences Scale (DES) is a 28-item self-reporting instrument that was developed by Bernstein and Putnam [11]. DES is not a diagnostic tool; rather, it is a screening test for DD with possible scores ranging from 0 to 100. The Turkish version of this scale has good reliability and validity [12] and among general psychiatric patients the cutoff score was determined to be 30 points [13].

3.3. The Somatoform Dissociation Questionnaire (SDQ)

The SDQ, which was developed by Nijenhuis et al. [14], is a 20-item self-report instrument that assesses the severity of somatoform dissociation. In Turkish samples, patients with test scores above 40 points have an increased risk of DD [15].

3.4. The Dissociative Disorders Interview Schedule (DDIS)

DDIS is a 131-item structured interview used to evaluate the DSM-IV diagnoses of somatization disorder, major depression, borderline personality disorder, alcohol and drug abuse, and the five DSM-IV dissociative disorders [16]. It is also used to inquire about a wide range of other experiences, such as trauma history, and about features thought to be associated with DID, such as Schneiderian symptoms. It has been found to have good inter-rater reliability (kappa = 0.68). The false positive rate is less than 1% for the diagnosis of DID. The DDIS has good concurrent validity with the DES and the Structured Clinical Interview for DSM-IV dissociative disorders [16]. In Turkey, the DDIS reveals a symptom pattern for DID that is quite similar to that noted in North American studies [17]. Yargıc et al. have reported Turkish validity and reliability [13]. In the Turkish version of the DDIS, two items regarding childhood emotional abuse and neglect items were combined, which is not the case in the English version [13].

3.5. The Symptom Check List 90 (SCL-90-R)

The SCL-90R is a 90-item, self-report clinical rating scale that is widely used to measure current psychopathology [18]. In addition to a global rating (Global Severity Index), it consists of nine subscales, which are as follows: somatization, obsessional compulsion, interpersonal sensitivity, depression, anxiety, anger–hostility, phobic anxiety, paranoid ideation, and psychoticism. The reliability and validity of the Turkish version of the SCL-90R produced similar results to those of the original version [19].

3.6. Statistical analyses

The software program, SPSS, version 16.0 (SPSS Inc. Chicago, Illinois, USA), was used to evaluate the results. Categorical variables were compared with chi-square tests, and, if the expected value in any cell of the two-by-two table was less than 5, the Fisher's Exact Test was used. Continuous variables were compared using the Mann Whitney-U and one-way ANOVA tests. For all statistical

Table 1
Types of dissociative disorder.

	N	%
Screening phase 1 (n = 1314)		
DES > 30 points	272	20.71
SDQ > 40 points	202	15.43
Patients whom we reached in 272 patients	190	69.8
Screening phase 2: Diagnosed with DDIS (n = 190)	167	87.8
The distribution of the diagnose in 167 participants with DDIS		
DD-NOS subgroups[a]	105	62.8
A) DD-NOS with multiple personality states	43	40.9
B) DD-NOS with indirect cues for personalities	35	33.3
Dissociative trans disorder	5	4.8
Derealization without depersonalization	10	9.6
Dissociative amnesia and depersonalization combination	12	11.4
Depersonalization disorder	29	17.5
Dissociative identity disorder	15	8.9
Dissociative amnesia	14	8.5
Dissociative fugue	4	2.3

[a] This categorization is consistent with the Sar, Akyüz & Doğan, 2007.

analyses, p values were two-tailed, and the level of significance was set at p = 0.05.

4. Results

In the first phase of the study, 1314 participants completed the DES test, with the exception of five who did not complete the SDQ. In the second phase of the study, participants' mean scores were as follows: DES, 43.73 ± 16.07; SDQ, 44.67 ± 13.38 points. Furthermore of the 272 patients whose test score was above the cut-off point for the DES and the SDQ, we included 69.8% of the participants. The average DES test scores for all participants (n = 1314) was 18.55 ± 17.23, and the mean SDQ scores for all participants (n = 1309) was 30.19 ± 13.32. In the second phase of the study, the average score of participants (n = 190) was 43.73 ± 16.07 and 44.67 ± 13.38 for the DES and SDQ, respectively. The sociodemographic features of patients in the second phase were as follows: 82.6% female and 17.4% male. The mean age of the sample was 31.16 ± 9.44 (31.32 ± 9.54 *vs* 30.39 ± 9.07), and of the 190 participants, 167 patients were diagnosed as having any DD (87.8%), while 23 participants did not meet any of the diagnostic criteria for a DD (12.2%). There were no significant differences based on gender (p = 0.436), marital status (p = 0.176), income (p = 0.953), education level (p = 0.344), or occupational status (p = 0.221) between patients with DID and DD-NOS.

According to the DDIS, of the 190 patients, 167 had various DSM IV-TR diagnoses (shown in Table 1). DDNOS was the most common diagnosis and was a useful subgroup of this category. The most prevalent subgroup of DDNOS was type 1 (74.2%); further subdivision of type 1 into two other categories [2] led to the following results: (a) (n = 43, 40.9%) not sufficiently distinct to meet Criterion A for DID or (b) unaccompanied by dissociative amnesia (n = 35, 33.3%). In another subgroup of DDNOS, Schneiderian Symptoms and the secondary features of DID (i.e., unremembered behavior and events) have been detected in clinical features, which support the presence of multiple personality states of which the patient is unaware (n = 35, 33.3%). In addition, of the DD-NOS group, the prevalence of dissociative derealization without depersonalization was 9.6%, and the presence of a dissociative trans disorder was relatively rare (4.8%) (Table 1).

Table 2
The secondary features of DID among groups.

Secondary Features of DID[a]	DID (n = 15)				DD-NOS (n = 105)				X^2/df	p
	Yes		No		Yes		No			
	n	%	n	%	n	%	n	%		
Noticing that objects are missing	7	47	8	53	53	51	52	49	0.097/1	0.756
Objects are present that cannot be accounted for	6	40	9	60	20	19	85	81	3.395/1	0.065
Different handwriting styles	4	27	11	73	17	16	88	84	0.998/1	0.297[b]
Strangers know the patient	11	73	4	27	60	57	45	43	1.424/1	0.274[b]
Being told by others of unremembered events	13	87	2	13	68	65	37	35	2.871/1	0.139[b]
Blank spells	11	73	4	27	81	77	24	23	0.106/1	0.749[b]
Coming out of a blank spell in a strange place	5	33	10	67	26	25	79	75	0.503/1	0.478
Amnesia for childhood	10	67	5	33	75	71	30	29	0.144/1	0.704
Flashbacks	11	73	4	27	84	80	21	20	0.354/1	0.513[b]
Feelings of unreality	9	60	6	40	62	59	43	41	0.005/1	0.944
Voices talking	12	80	3	20	52	49	53	51	4.898/1	0.030*[b]
Voices coming from inside	12	80	3	20	62	59	43	51	0.078/1	0.567[b]
Referring to self as "we" or "us"	9	60	6	40	26	25	79	75	7.889/1	0.005*
Another person existing inside	13	87	2	13	54	51	51	49	6.609/1	0.012*[b]
Person inside has a different name	8	53	7	47	13	12	92	88	15.04/1	0.001*
Another person taking control	9	60	6	40	4	4	101	96	42.90/1	0.001*[b]

[a] Chi square test was used.
[b] Fisher's Exact Test.
* Statistically significance level has been set as p < 0.05.

Table 3
Schneiderian symptoms.

First Rank Schneiderian Symptoms[a]	DID (n = 15)				DD-NOS (n = 105)				X^2/df	P
	Yes		No		Yes		No			
	n	%	n	%	n	%	n	%		
Voices arguing or disagreeing in your head	13	87	2	13	48	46	57	54	8.807/1	0.004*[b]
Voices commenting on your actions	13	87	2	13	57	54	48	46	5.662/1	0.023*[b]
Having your feelings made or controlled by someone or something outside of you	9	60	6	40	25	24	80	76	8.466/1	0.006*
Having your thoughts made or controlled by someone or something outside of you	12	80	3	20	37	35	68	65	10.885/1	0.001*[b]
Having your actions made or controlled by someone or something outside of you	13	87	2	13	46	44	59	56	9.646/1	0.002*[b]
Influences from outside of you playing on or affecting your body such as some external force or power	10	67	5	33	20	19	85	81	15.873/1	0.001*
Having thoughts taken out of your mind	5	33	10	67	8	8	97	92	8.984/1	0.011*
Thinking thoughts which seem to be someone else's	3	20	12	80	6	6	99	94	3.861/1	0.084[b]
Hearing your thoughts out loud	2	13	13	87	6	6	99	94	1.196/1	0.265[b]
Other people being able to hear your thoughts as if they were occurring out loud	2	13	13	87	8	8	97	92	0.561/1	0.612[b]
Thoughts of a delusional nature that are very out of touch with reality	9	60	6	40	46	44	59	56	1.386/1	0.184

[a] Chi square test was used.
[b] Fisher's Exact Test.
* Statistically significance level has been set as $p < 0.05$.

In some studies, DID and DD-NOS were proposed to be a supraordinate category [20], while DID and DD-NOS (especially type 1) were diagnosed as a chronic complex dissociative disorder [21]. Therefore, given the literature on this topic, we sought to determine clinical features (i.e., Secondary Features, Schneiderian Symptoms, and Extrasensorial Perceptions) in DID and DD-NOS (Tables 2, 3). As observed in Tables 2 and 3, there were more patients in the DID group than in the DDNOS group based on the secondary features and Schneiderian symptoms of the most significant results, such as: "hearing voices" ($p = 0.030$), "referring to self as we or us" ($p = 0.005$), "another person existing inside" ($p = 0.012$); "thought control" ($p < 0.001$) and "thought withdrawal" ($p = 0.011$). Moreover, according to the DDIS, only two items significantly differentiated the two conditions with respect to extrasensorial experiences/perceptions, while the remaining items (supernatural experiences, possession by a dead person, reincarnation, etc.) were not able to distinguish between the two conditions. "Seeing the future in dreams" was more frequent in the DD-NOS group when compared to the DID group ($p = 0.029$), and "possession by a living person" was more frequent in the DID group than the DDNOS group ($p = 0.002$).

In the cases of comorbidity, according to the DDIS, there were no significant differences between the participants diagnosed with DID and DDNOS with respect to a somatization disorder ($p = 0.072$), lifetime major depressive episode ($p = 0.875$) or borderline personality disorder ($p = 1.00$). In addition, according to the DDIS, there was a significant difference in self-mutilative behaviors ($p = 0.005$), as this was more frequent in the DID than in the DD-NOS group. However, the prevalence of previous psychiatric treatment ($p = 0.887$) and suicide attempts ($p = 0.269$) was nonsignificant.

In Turkish culture, some individuals believe in the concept of 'Jinn', which comes from the Qur'an, the holy text of the Islamic Religion. We assessed patients for this belief by asking whether they linked Jinn to their mental illnesses.

Table 4
Comparison of DID and DD-NOS with respect to questions related to cultural psychiatry.

Questions related to cultural psychiatry[a]	DID		DD-NOS		Other DDs[b]		x^2/df	P
	Yes		Yes		Yes			
	n	%	n	%	n	%		
•Do you believe Jinns?	13	86.7	79	75.2	30	63.8	4.037/2	0.157
•Do you believe making of illness of Jinns?	11	73.3	58	55.2	18	38.3	8.060/2	0.035*
•According to you, does your illness is arise from Jinns?	3	20.0	13	12.5	4	8.5	14.24/4	0.028*

[a] A Chi square test was used.
[b] Dissociative amnesia, depersonalization disorder, and dissociative fugue.
* Statistically significance level has been set as $p < 0.05$.

Table 5
Comparison of SCL-90R scores for the DID, DD-NOS and Other groups.

SCL-90R items[a]	DID (n = 15) Mean ± SD	DD-NOS (n = 105) Mean ± SD	Other DDs[b] (n = 47) Mean ± SD	F	P
Somatization	2.55 ± 1.00	2.23 ± 0.87	2.12 ± 0.78	1.419	0.245
Obsessive compulsive signs	2.65 ± 0.63	2.32 ± 0.79	2.24 ± 0.71	1.695	0.187
Interpersonal Sensitivity	2.76 ± 0.95	2.26 ± 0.90	2.02 ± 086	3.912	0.022*
Depression	2.89 ± 0.89	2.39 ± 0.83	2.23 ± 0.77	3.712	0.027*
Anxiety	2.72 ± 0.93	2.31 ± 0.86	2.11 ± 0.78	2.901	0.058
Hostility	2.66 ± 1.10	2.14 ± 0.97	1.88 ± 0.90	3.787	0025*
Phobic Anxiety	1.95 ± 1.19	1.68 ± 0.94	1.51 ± 0.88	1.294	0.277
Paranoid Ideation	2.51 ± 0.89	2.16 ± 0.91	1.87 ± 0.88	3.263	0.041*
Psychoticism	2.09 ± 0.993	1.82 ± 0.94	1.45 ± 0.74	3.926	0.022*
General total	220.6 ± 83.9	195.41 ± 67.27	180.27 ± 53.23	3.355	0.037*
General symptom index	2.55 ± 0.79	2.17 ± 0.74	1.97 ± 0.60	3.544	0.031*

DID, dissociative identity disorder, DD-NOS, dissociative disorder not otherwise specified.
[a] A one-way ANOVA was used, after Bonferroni correction.
[b] Depersonalization disorder, dissociative amnesia, and dissociative fugue.
* Statistically significance level has been set as $p < 0.05$.

Based on this questions, there were no differences among the DID and DD-NOS groups ($p = 0.516$, $p = 0.266$, $p = 0.093$). These two groups had similar responses amongst patients.

While taking into consideration other dissociative disorders, including depersonalization, amnesia and fugue as a third group, there were some significant differences between the groups, for example, the belief that jinns caused their illnesses (Table 4). According to the SCL-90R, significant differences were observed for only the depression items in the DID and DD-NOS groups ($p = 0.038$). Significant differences were observed more commonly when including other dissociative disorders in the statistical analysis (Table 5). In comparing the DD group to DID, DD-NOS and others, there were numerous significant differences between items, which are shown in Table 5.

5. Discussion

In the screening studies documented in the literature, different inclusion cutoff points have been used during the screening of various samples [1,22]. In the USA, a sample of subjects was screened with the DES; subjects who were found to be at risk were asked to complete the DDIS, and 24 (29%) of the 82 patients received diagnoses of dissociative disorders [22]. According to the DES in Turkey, the prevalence rate of at-risk outpatients was found to be 15.3% [1]. However, in this study, we found a slightly higher prevalence rate than that noted in previous studies conducted in Turkey (20.7%) using the same cut off point [1]. This relatively high prevalence rate could be due to the following factors: i) at risk: the inclusion of outpatients who had scores higher than the cut off points for the DES and/or SDQ; ii) low income [22]: 82.1% of patients were of low/middle income; iii) low education level [22]: 84.2% of patients received 5–8 years of education; and iv) abuse [22]: the rates of emotional abuse and neglect were higher in our study group in accordance with the findings of Sar et al. [1]. In the USA study, the prevalence rate was higher than that noted in our findings, and the study sample consisted of predominantly minority, poorly educated and poor inner city populations who had experienced a higher prevalence of sexual and physical abuse [22].

In this study, the most prevalent dissociative disorder diagnosis was DD-NOS based on the DDIS. This result supports our hypothesis and is consistent with other investigations concerning dissociative disorders [1,3,5]. The high prevalence of DDNOS has been associated with cultural factors as well as diagnostic and nosologic problems [23,24]. Many patients with dissociative fugue and dissociative amnesia, which are not rare in dissociative identity disorder, also have symptoms of depersonalization and derealization; indeed, somatoform disorder and conversion disorder can also be included in the diagnosis of DD-NOS [6], which contributes to the heterogeneity of this DD-NOS item, thus, forcing authorities to propose a reduction in the rate of DD-NOS in the DSM 5 [25].

Interestingly, the results of this study revealed the prevalence of dissociative fugue to be very low, and 2.3% of DD patients were diagnosed as having dissociative fugue in the second phase. The prevalence rate of this condition in females in Turkey's general population is 0.2% [3] and 0% in the outpatient psychiatric population, although the sample size was very small in this study [22]. This relatively infrequent rate of dissociative fugue has led the authorities to propose that this diagnostic category be subsumed under dissociative amnesia in the DSM 5 [25].

In the current study, due to the fact that DD-NOS was the most common DD in our study, we examined the subtypes of the DDNOS group and found that 74.2% of this group was DD-NOS type 1. Based on our observations, we diagnosed 40.9% of this group as either (a) the most prevalent subgroup of DD-NOS, type 1, which was not sufficiently distinct to meet Criterion A for DID or (b) unaccompanied by dissociative amnesia (n = 43, 40.9%). In another subgroup of DD-NOS type 1, the detection of Schneiderian Symptoms

and Secondary Features of DID (i.e., unremembered behavior and events) supports the presence of multiple personality states that are accepted as unaware patients (n = 35, 33.3%), as in the previous study [3]. Our study is in accordance with that of Sar et al. from Turkey [3] and Spiegel and Cardena who claim that this categorical complex needs to be addressed in future DSM studies [8]. Some authors claim that the DDNOS type 1 diagnosis is a misdiagnosis of DID [26,27]. In a follow-up study of 24 patients with an initial diagnosis of DD-NOS, 19 were diagnosed as DID and later responded to treatment of their DID [28]. Furthermore, some studies have proposed that DID and DDNOS type 1 should be combined to create a new diagnostic category, i.e., major dissociative disorder, while some other studies have subsumed these diagnoses under the diagnosis of chronic dissociative disorder [20,21,29]. In our study, we sought to determine shared secondary features of identity (60%–80%) between DID and DD-NOSDD-NOS. The lack of significant differences between groups for secondary features, e.g., being told by others of unremembered events, flashback experiences, voices that originate from within the person, being known by strangers, and blank spells DD-NOS support the above mentioned diagnostic title. Nevertheless, high rates of convertion of DD-NOS diagnosis to DID, as demonstrated in a follow-up study conducted in Holland, may be a topic of interest for further debate in the future [28]. Because of these debates on DD-NOS and DID, we aimed to compare the common and uncommon features of DID and DD-NOS according to the secondary features of DID to the first ranking Schneiderian symptoms and extrasensorial perceptions via the DDIS (Tables 2, 3), as there are few studies that have performed this comparison in the literature. In our study, various sub items of the DDIS, i.e., "talking voices", referring to self as "we" or "us", the presence of "another person existing inside" ("person inside has a different name"), "another person taking control" are significantly higher in outpatients with DID than DD-NOS. Based on these findings, these sub-items would be more specific to DID than DD-NOS and may be valuable in differentiating between these two disorders. In DSM 5, the proposed revision of criterion A for DID includes "disruption of identity characterized by two or more distinct personality states or an experience of possession". This involves marked discontinuity in one's sense of self and sense of agency, accompanied by related alterations in affect, behavior, consciousness, memory, perception, cognition, and/or sensory-motor functioning. These signs and symptoms may be observed by others or reported by the individual. In criterion B, there exist recurrent gaps in the recall of everyday events, important personal information, and/or traumatic events that are inconsistent with ordinary forgetfulness [25]. The importance of this contribution to the diagnostic criteria of identity is that more flexibility should reduce the rate of DDNOS in clinical practice and in epidemiological studies.

We hypothesized that first rank Schneiderian symptoms could be more specific for DID than DDNOS. Thus, we considered that Schneiderian symptoms, for example, "voice comments", "thought control", "thought withdrawn" and "being controlled by an external force," could originate from an altered personality in dissociative disorders, which has not been emphasized in DSM-IV-TR. We concluded that Schneiderian Symptoms, although there continues to be debate as to whether they are psychotic experiences, should not be forgotten with respect to DID.

In our study, the prevalence rate of Extrasensorial Perceptions was rare, although such experiences have been reported frequently in the Trance Disorder subgroup in the literature. In the DSM 5 work group on dissociative disorders, they have revised the experience of possession diagnosis under the category of DID with the goal of reducing the diagnostic frequency of DDNOS [25]. Nevertheless, according to our results, this proposal would not reduce the diagnostic frequency of DD-NOS in our culture when compared to Uganda, where there are notable cultural influences with respect to this phenomenon [5,6,23–25]. In Turkey, 90% of the population is Muslim, and a 'Jinn' is believed to manifest as a human being according to the Islamic religious text, the Qur'an. To believe in possession by Jinn or demons or to have contact with spirits of any type is strictly forbidden in Islam, and we have not found significant differences in extrasensorial perceptions dealing with these issues between DID and DDNOS. However, the proportion of patients who believed that their illnesses were linked to Jinn for the DID and DD-NOS groups was significantly higher than for other dissociative disorders (Table 4). Thus, in DSM 5, the authors revised the diagnostic category of DID based on cultural observations [25].

Although interpersonal sensitivity, depression, paranoid ideation, psychoticism, and the general symptom index were not different between DID and DD-NOS according to SCL-90-R items, some significant differences were noted in patients with DID when compared to patients with other dissociative disorders (Depersonalization Disorder, Dissociative Fugue, and Dissociative Amnesia). These differences were consistent with the suggestion of polysymptomatic and psychotic features and the heterogeneity of DID and DD-NOS categories.

This study has limitations. First, although the sample size was large during the screening phase, the relatively small sample size of patients with DID might have weakened the comparison outcomes. Second, the study had a cross sectional design, and a study that provided longitudinal outcomes of patients with DD-NOS might yield more information.

In conclusion, DD-NOS seems to be the most common diagnosis, although it is the most heterogeneous diagnostic entity within the dissociative disorders. Some secondary features in DDIS and Schneiderian symptoms are more specific for DID than DD-NOS, while there are many shared clinical features between both clinical entities. Thus, the problem seems to be at the interface between DID and DD-NOS, which should be clarified in further studies.

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