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Dissociative psychosis or dissociative schizophrenia? Comparison of two phenomena

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Abstract

Background In recent years, researchers have reported crucial advances in the understanding of "Dissociative psychosis" and "Dissociative schizophrenia". While clinical studies in this area have been sustained for well, it remains to be established for some aspects that a clear and valid relationship exists between dissociation, childhood traumatic experiences, and schizophrenia or psychotic spectrum disorders. Methods: To test such hypotheses, we divided the patients into two groups; the first group consisted of patients with psychotic disorders not otherwise specified (PNOS), and the second group consisted of schizophrenic patients. Further, we have investigated the symptoms of dissociation, its relation to childhood traumatic experiences, and psychotic symptoms. The study included 81 patients diagnosed with schizophrenia according to DSM-5 diagnostic criteria and 81 patients diagnosed with PNOS. Researchers assessed participants using the Dissociation Questionnaire (DIS-Q), the Childhood Trauma Questionnaire (CTQ, and the Positive and Negative Syndrome Scale (PANSS). Results: The present study showed that patients with PNOS have higher dissociation and childhood traumatic experiences scores than the schizophrenic group and that the patients with the PNOS group yielded elevated physical abuse, emotional abuse, emotional neglect, sexual abuse, and bodily neglect scores as compared to the schizophrenic group. However, the PNOS group exhibited significantly lower PANSS total, PANSS negative, and PANSS general psychopathology scores compared to the schizophrenia group. DIS-Q and total CTQ level were also significant predictors of PNOS. Conclusion: Our results of statistical comparisons have supported the existence of the clinical manifestation known as dissociative psychosis, not dissociative schizophrenia.

Keywords Schizophrenia, Other psychotic disorders, Dissociation, Childhood traumatic experiences, Positive and negative syndrome

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Introduction

According to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) [1], the normal integration of consciousness, memory, identity, emotion, perception, body representation, motor control, and behavior is disrupted or discontinuous in dissociation. Comparable phenomena range from mild, such as not recognizing oneself in a mirror, to more extreme, such as complete immersion in a book or movie [2]. Mild forms of absorption that focus on one component of the experience while blocking out others—have often been associated with more generalized experiences [3]. The DSM-5 dissociative disorder subcategories reflect more severe dissociative experiences: Inability to recall autobiographical details is called dissociative amnesia; depersonalization/derealization disorders include blurred, unreal, or visually distorted perceptions of one's surroundings; and a sense of alienation or detachment from one's body, ideas, or emotions [1].

Authors who researched dissociation define dissociative disorders as a chronic, post-traumatic process associated with childhood traumatic experiences [4]. Furthermore, dissociative experiences can cause severe distress, feelings of overwhelm, and worsening of psychotic experiences in psychotic patients [5–7]. The evolutionary line of the coexistence of psychosis and dissociation is not easy to trace. However, many authors cite overlaps, causal relationships, and similarities between dissociation and psychotic symptoms [8]. For this purpose, a study found that the depersonalization and derealization symptoms are directly related to first-rank psychotic symptoms in 167 schizophrenia spectrum and 156 'other psychosis' patients [9]. Some studies have focused on the relationship between dissociation and trauma. Schafer et al. demonstrated that dissociative symptoms are predicted by positive psychotic symptoms at admission and childhood sexual abuse [10]. Furthermore, Schalinski et al. reported that dissociative symptoms mediated the relationship between childhood trauma and psychotic symptoms [11]. The idea that psychotic disorders represent dissociative symptoms is consistent with the results of these extensive clinical studies, which show a predictive and causal relationship. On the other hand, in a recent large clinical study, dissociative symptoms in 902 patients with non-affective psychosis were reported to be frequent (65.4% of cases). The authors also noted that dissociation was associated with paranoia and hallucinations [8].

On the other hand, in a descriptive context, "dissociative" and "traumatic" schizophrenia have also been differently interpreted. Generally, although this definition is not widely accepted, some authors have suggested the existence of this clinical description [12]. Based on clinical phenomenology and the traumatic nature of pathology, Ross suggested that a clinically acceptable description might be achieved by a clinical phenomenology called "dissociative subtype of schizophrenia" [13]. Sar et al. maintained that the diagnostic value of sequential dissociative schizophrenia symptomatology is equal to that of concurrent symptomatology and includes patients suffering from high levels of dissociation and childhood traumatic experiences [12].

In recent years, there have been significant advances in the understanding of "Dissociative psychosis" and "Dissociative schizophrenia." With this increase in information and knowledge of both clinical descriptions of pathology used in psychiatry and the possible mental dysfunction associated with particular psychotic, dissociative, and childhood traumatic experiences, attempts to clarify and compare both clinical phenomenology within a cross-sectional study have been made. To test such hypotheses, we divided the patients into two groups; the first group consisted of patients with psychotic disorders not otherwise specified (PNOS), and the second group consisted of schizophrenic patients. Further, we have investigated the symptoms of dissociation, its relation to childhood traumatic experiences, and psychotic symptoms. We have hypothesized that patients with PNOS have higher levels of dissociative symptoms and childhood traumatic experiences than classical schizophrenic patients.

Materials and methods

Researchers consecutively admitted all patients with schizophrenia and psychotic disorders not otherwise specified (PNOS) to the Psychiatry Outpatient Clinic of Mardin Training and Research Hospital in the eastern region of Turkey in 2024. Schizophrenia diagnoses were based on DSM-5 criteria, whereas PNOS, although not a DSM-5-specific diagnosis, includes conditions that in DSM-5 are categorized as Unspecified Schizophrenia Spectrum and Other Psychiatric Disorders or Other Specified Schizophrenia Spectrum and Other Psychiatric Disorders [1]. The researchers set a 6-month study period (April 2024 – September 2024). The researchers included 81 patients diagnosed with schizophrenia disorder and 81 patients diagnosed with PNOS in the study. The researchers also used the Structured Clinical Interview for DSM-5 Clinician Version (SCID-5/CV) format to confirm the diagnosis [14]. The study was conducted following the Declaration of Helsinki and approved by the Mardin Artuklu University Non-Interventional Clinical Research Ethics Committee (Institutional Review Board, IRB Approval; Decision No: 2024/4–32, Date: April 16, 2023). Written informed consent was obtained from all participants after a full explanation of the study procedures. Sociodemographic Data Form, Childhood Trauma Questionnaire (CTQ), Positive and Negative Syndrome

Scale (PANSS), and Dissociation Questionnaire (DIS-Q) were administered to all participants.

Reasons for exclusion encompassed: profound cognitive impairment ($n=6$), psychosis of such severity that cooperation was unfeasible ($n=7$), and prior administration of electroconvulsive therapy within the three-month period preceding the examination interview ($n=3$). Among the 175 patients evaluated as eligible for the study, 10 declined to participate, and 3 were unable to do so due to illiteracy. Consequently, a total of one hundred sixty-two patients comprised the final study cohort. All participants were concurrently receiving neuroleptic medication as prescribed by their attending psychiatrists.

Measures

The authors investigated demographic data such as gender, age, and clinical characteristics of the disorders, such as traumatic events, in the sociodemographic data form.

Vanderlinden et al. developed the Dissociation Scale (DIS-Q; to describe the level of dissociative experiences, dissociative disorders, and multiple personality disorders [15]. Sar et al. adapted the scale to Turkish [16]. DIS-Q scale is a Likert-type self-report scale. Researchers established a cut-off point, above which scores strongly suggest the possibility of a dissociative disorder [16].

Clinicians use the Positive and Negative Syndrome Scale (PANSS) to test the symptoms of patients with schizophrenia. It is a semi-structured 30-item scale. It includes 3 subscales, 7 of which assess positive syndrome, 7 negative syndromes, and the remaining 16 assess general psychopathology. For each item, an evaluation is made between 1 and 7 according to the severity. Subscale and total PANSS scores are calculated by summing the item scores in each subscale. The Turkish validity and reliability of the scale were determined by Kostakoğlu et al. [17].

Bernstein et al. developed the Childhood Trauma Questionnaire [18]. The test is a 5-point Likert-type scale with 28 items. It has five subscales, each with five questions. These subscales include childhood sexual, physical, and emotional abuse and physical and emotional neglect. Şar and colleagues designed the validity and reliability study of the CTQ in Turkish [19].

Statistics

Research data underwent statistical analysis using the IBM SPSS 21.0 for Windows software package. Researchers expressed the continuous variables as mean ± standard deviation, while authors represented the categorical variables as counts and percentages (%). The Kolmogorov–Smirnov test assessed the normal distribution of the data. For pairwise comparisons of variables, the authors employed the t-test as independent samples. The authors also utilized the chi-square (χ2) test to compare qualitative variables across groups. Univariate and multivariate binomial logistic regression analyses were conducted to identify variables predicting group membership, focusing on the PNOS group. This analysis aligns with the study's primary aim of investigating the distinct contributions of dissociative symptoms, and childhood trauma to the clinical presentation of PNOS. Statistically significant variables; dissociation scores, childhood trauma, and psychotic symptom scales, were included in the model. While all participants were incorporated into the regression analysis, results are discussed primarily in the context of PNOS to explore its unique clinical predictors, consistent with the overarching hypothesis. A statistically significant result was considered when $p<0.05$.

Results

The basic characteristics of the PNOS and Schizophrenia groups are summarized in Table 1. There were no significant differences in education level and gender distribution between the PNOS and Schizophrenia groups ($p=0.276$ and $p=0.476$, respectively). However, the mean age was significantly higher in the Schizophrenia group ($p=0.001$). Additionally, the proportion of unmarried individuals was higher in the PNOS group (63%) compared to the Schizophrenia group (45.7%) ($p=0.027$), and a history of traumatic events was more common in the PNOS group (35.8% vs. 13.6%; $p=0.001$).

In terms of symptomatology, the PNOS group exhibited significantly lower PANSS Total, PANSS Negative, and PANSS General Psychopathology scores compared to the Schizophrenia group ($p=0,000$). However, no significant difference was found in PANSS Positive scores between the groups ($p=0.167$). DIS-Q scores were significantly higher in the PNOS group compared to the

Table 1 Basic characteristics of psychotic disorder not otherwise specified and Schizophrenia groups

	Total Sample ($n=162$)			
	PNOS ($n=81$)	Schizophrenia ($n=81$)		
	Mean ± SD / n (%)	Mean ± SD / n (%)	F /χ^2	*p*
[b]Age	29.35 ± 9.06	34.13 ± 8.07	0.377	**0.001**
[b]Education (years)	10.86 ± 3.71	10.19 ± 4.04	1.588	0.276
[a]Gender(female)	41 (50.6)	36 (45)	0.509	0.476
[a]Marital Status(non-married)	51 (63)	37 (45.7)	4.876	**0.027**
[a]History of Traumatic Event(yes)	29 (35.8)	11 (13.6)	10.756	**0.001**

Abbreviation: SD, Standard deviation; PNOS, Psychotic Disorder Not Otherwise Specified.

[a]χ^2, Chi-squared test.

[b]Student's t-test applied.

$p<0.05$ statistically significant (bold values)

Schizophrenia group ($p = 0.000$). Similarly, CTQ Total and its subscales (Emotional abuse, Physical abuse, Sexual abuse, Emotional neglect, and Physical neglect) were significantly higher in the PNOS group compared to the Schizophrenia group ($p < 0.05$) (Table 2).

Logistic regression analyses were conducted to identify predictors of group membership for both the PNOS and Schizophrenia groups. The dependent variable was coded as 0 for PNOS and 1 for Schizophrenia (Table 3a). Univariate and multivariate analyses used PANSS Total, DIS-Q, and CTQ Total scores as predictors.

For the Schizophrenia group, as detailed in Table 3b, univariate regression analyses revealed that all predictors were significantly associated with group membership. PANSS Total (B = 0.035, $p < 0.001$, Exp(B) = 1.036, 95% CI [1.020–1.152]), DIS-Q (B =-1.564, $p < 0.001$, Exp(B) = 0.209, 95% CI [0.129–0.339]), and CTQ Total (B =-0.088, $p < 0.001$, Exp(B) = 0.916, 95% CI [0.891–0.941]) were all significant. In the multivariate model, DIS-Q (B =-0.990, $p = 0.001$, Exp(B) = 0.372, 95% CI [0.212–0.653]) and CTQ Total (B =-0.046, $p = 0.005$, Exp(B) = 0.955, 95% CI [0.925–0.986]) remained significant independent predictors, whereas PANSS Total was not statistically significant (B = 0.008, $p = 0.442$, Exp(B) = 1.008, 95% CI [0.998–1.028]). The model showed strong statistical significance ($\chi^2 = 76.289$, $p < 0.001$), explained 50.1% of the variance (Nagelkerke $R^2 = 0.501$), and achieved a correct classification rate of 81.5%.

For the PNOS group, as outlined in Table 3b, univariate analyses similarly identified PANSS Total (B =-0.035, $p < 0.001$, Exp(B) = 1.036, 95% CI [1.020–1.152]), DIS-Q (B = 1.564, $p < 0.001$, Exp(B) = 0.209, 95% CI [0.129–0.339]), and CTQ Total (B = 0.088, $p < 0.001$, Exp(B) = 0.916, 95% CI [0.891–0.941]) as significant predictors. In the multivariate analysis, DIS-Q (B = 0.990, $p = 0.001$, Exp(B) = 0.372, 95% CI [0.212–0.653]) and CTQ Total (B = 0.046, $p = 0.005$, Exp(B) = 0.955, 95% CI [0.925–0.986]) remained significant independent predictors, while PANSS Total was not statistically significant (B =-0.008, $p = 0.442$, Exp(B) = 1.008, 95% CI [0.998–1.028]). The model for PNOS was also statistically significant ($\chi^2 = 76.289$, $p < 0.001$), explained 50.1% of the variance (Nagelkerke $R^2 = 0.501$), and achieved a correct classification rate of 81.5%.

Table 2 Comparison of DIS-Q, CTQ, and PANSS scores of psychotic disorder not otherwise specified and sch groups

	Total Sample (*n* = 162)		
	PNOS (*n* = 81)	**Schizophrenia (*n* = 81)**	
	Mean ± SD	**Mean ± SD**	***p***
PANSS Total	92.44 ± 23.32	109.16 ± 19.30	**0,000**
Positive	26.19 ± 6.28	24.72 ± 7.16	0.167
Negative	19.34 ± 8.83	28.43 ± 5.43	**0,000**
General Psychopathology	46.90 ± 13.35	56.00 ± 10.37	**0,000**
DIS-Q	3.45 ± 1.05	2.20 ± 0.62	**0,000**
CTQ Total	68.25 ± 14.09	49.24 ± 13.53	**0,000**
Physical abuse	11.76 ± 3.77	7.96 ± 3.04	**0,000**
Emotional abuse	12.58 ± 3.66	11.30 ± 3.55	**0,026**
Emotional neglect	18.20 ± 4.96	12.55 ± 3.98	**0,000**
Sexual abuse	11.71 ± 4.25	7.46 ± 3.58	**0,000**
Physical neglect	14.04 ± 3.71	10.17 ± 3.05	**0,000**

Abbreviation: SD, Standard deviation; PNOS, Psychotic Disorder Not Otherwise Specified; PANSS, Positive and Negative Syndrome Scale; DIS-Q, Dissociation Questionnaire; CTQ, Childhood Trauma Questionnaire; Student's t-test applied.

$p < 0.05$ statistically significant (bold values).

Table 3a Dependent Variable Coding for Logistic Regression Analysis

Original Value	**Internal Value**
Psychotic Disorder Not Otherwise Specified	0
Schizophrenia	1

These findings indicate that dissociation and childhood trauma play distinct roles in differentiating PNOS and Schizophrenia groups. While lower dissociation and trauma scores are associated with Schizophrenia group membership, higher scores are indicative of PNOS. This demonstrates the importance of these clinical features in understanding and differentiating psychotic disorders.

Discussion

In recent years, researchers have reported crucial advances in the understanding of "Dissociative psychosis" and "Dissociative schizophrenia". While clinical studies in this area have been sustained for well, it remains to be established for some aspects that a clear and valid

Table 3b Univariate and multivariate binomial logistic regression of potential CTQ, PANSS, and DIS-Q for prediction of being in the group of Schizophrenia

	Univariate			**Multivariate**		
	B	Sig.	Exp (B) (%95 CI)	B	Sig.	Exp (B) (%95 CI)
PANSS Total	0.035	**0.000**	1.036 (1.020–1.152)	0.008	0.442	1.108 (0.998–1.028)
DIS-Q	-1.564	**0.000**	0.209 (0.129 – 0.339)	– 0.990	**0.001**	0.372 (0.212–0.653)
CTQ Total	– 0.088	**0.000**	0.916 (0.891 – 0.941)	– 0.046	**0.005**	0.955 (0.925 – 0.986)

Abbreviation: PANSS, Positive and Negative Syndrome Scale; DIS-Q, Dissociation Questionnaire; CTQ, Childhood Trauma Questionnaire

$p < 0.05$ statistically significant (bold values)

Logistic regression, Model summary; x2 = 76.289, $p < 0.001$, Percent correct classification 81.5% with Nagelkerke R2 of 0.501

relationship exists between dissociation, childhood traumatic experiences, and schizophrenia or psychotic spectrum disorders. However, there also appears to be a relationship between psychotic and dissociative symptoms in psychotic disorders [8, 20]. Researchers have used diagnoses based on general terms and analyzed the phenomena only at the symptom level. The inherent heterogeneity of psychotic spectrum disorders and the inability to classify the disorders into relevant subgroups have made studying difficult. Despite this, we divided the patients into two groups according to the DSM-5. Thus, researchers have tried to determine whether dissociative symptoms, psychotic symptoms, and childhood traumatic experiences are specific to which group or which relationship is more pronounced.

The benefits of investigating the relationships between the psychotic spectrum, schizophrenia, dissociation, and childhood traumatic experiences are clinically and scientifically expressive. In a meta-analysis in this field, researchers have reported that associations of dissociative symptoms with negative symptoms were small and, in some cases, nonsignificant. These findings have confirmed that dissociative phenomena are not only strongly associated with hallucinations but are also strongly associated with multiple positive symptoms and less strongly associated with negative symptoms. The authors' findings are consistent with suggestions that marked psychotic symptoms may be better conceptualized as dissociative and may support the development of interventions targeting dissociation in the formulation and treatment of psychotic experiences [20]. Braehler et al. have reported a stronger relationship between childhood trauma and dissociative symptoms in chronic and first-episode psychotic patients than in non-psychotic control subjects. The authors also have found that emotional abuse is notable in explaining variability in dissociation, especially in chronic patients [19, 21]. Although there are contradictory results, many authors have reported high levels of dissociative symptoms in patients with schizophrenia [22–24]. Ross and Sar et al. proposed a dissociative subtype of schizophrenia based on clinical phenomenology and a history of childhood trauma [12, 13]. Ross also has suggested that non-dissociative schizophrenia, the dissociative subtype of schizophrenia, schizo-dissociative disorder, and dissociative identity disorder also form a spectrum [13]. Nevertheless, dissociative symptoms and childhood traumatic experiences may act on the pathological psychotic process and positive symptoms in schizophrenia. The dissociative symptoms and childhood traumatic experiences associated with negative symptoms of schizophrenia remain obscure.

The present study showed that patients with PNOS had higher dissociation and childhood traumatic experiences scores than the schizophrenic group and that the patients with the PNOS group yielded elevated physical abuse, emotional abuse, emotional neglect, sexual abuse, and bodily neglect scores as compared to the schizophrenic group. However, the PNOS group exhibited significantly lower PANSS total, PANSS negative, and PANSS general psychopathology scores compared to the schizophrenia group. Researchers find no significant difference in PANSS positive scores between the groups. In the logistic regression analysis, total dissociation and total childhood traumatic experience level were significant predictors of PNOS.

Different areas in the diagnosis of dissociative schizophrenia need to be addressed: high-level dissociative symptoms and childhood traumatic experiences that constitute the disorder; the boundaries of dissociative schizophrenia that separate it from other psychotic disorders and classic schizophrenia; and the division of dissociative schizophrenia into relevant subgroups [25–27]. Our results of statistical comparisons have supported the existence of the clinical manifestation known as dissociative psychosis, not dissociative schizophrenia. Because our results obtained from dissociative symptom and childhood traumatic experience scales in schizophrenic patients were statistically significantly lower. However, the levels of positive symptoms of psychosis required to support the diagnosis did not differ in both groups. Schizophrenic patients had dominantly negative symptoms during their evaluation. Negative symptoms occur as emotional, cognitive, and social capacities decline. Negative symptoms are characterized by symptoms that cause disability, possibly irreversible outcomes, poor response to antipsychotics, and intellectual and social impairment in schizophrenia [27, 28]. Understanding negative and positive symptoms of schizophrenia along these sequential lines may be useful in improving the diagnostic reliability of dissociative psychosis.

We have detected that total dissociation and childhood traumatic experience levels are significant predictors of PNOS. It is clear that more extensive studies are necessary. We can at least identify our empirical data as reflecting dissociative psychosis. The most important consideration is that we have not found notable data about dissociative schizophrenia and that these discussions and related literature are capable of being studied. We need to state once again that the foremost issue here is the presence of negative symptoms. Dissociation, childhood traumatic experiences, and positive psychotic symptoms may be a prominent part of PNOS. The intense presence of negative symptoms may indicate classical schizophrenia.

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Author contributions
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Data availability
The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request. Hasan Gokcay e-mail address: hasangkcy@yahoo.com.

Declarations

Ethics approval and consent to participate
This study was conducted following the Declaration of Helsinki and approved by the Mardin Artuklu University Non-Interventional Clinical Research Ethics Committee (Institutional Review Board, IRB Approval; Decision No: 2024/4–32, Date: April 16, 2023). Written informed consent was obtained from all participants after a full explanation of the study procedures.

Consent for publication
Not applicable.

Competing interests
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