Childhood Trauma and Dissociation in Female Patients With Schizophrenia Spectrum Disorders

An Exploratory Study

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Abstract: The few studies that have investigated the relationship between trauma and dissociative symptoms in patients with schizophrenia have not assessed the role of the severity of psychotic symptoms. The current study examined correlations among five domains of childhood trauma and dissociative symptoms in 30 female patients with schizophrenia spectrum disorders, using the Dissociative Experiences Scale and the Childhood Trauma Questionnaire. Psychotic symptoms were measured by the Positive and Negative Syndrome Scale. Consistent with previous studies, high levels of childhood traumatic experiences were found (Childhood Trauma Questionnaire total score $M = 48.5$, $SD = 18.3$). Physical neglect and emotional abuse showed significant correlations with dissociative symptoms at admission. When patients were stabilized, about a month after admission, emotional abuse still showed a significant correlation with dissociative symptoms. However, in contrast to previous findings, Dissociative Experiences Scale findings were not stable over time. Our results confirm the relevance of childhood trauma in schizophrenic patients but also demonstrate the need to develop appropriate methodologies for measuring dissociation in this population.

Key Words: Schizophrenia, psychosis, trauma, dissociation.

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Recently, numerous studies have reported high rates of childhood physical and sexual abuse in psychotic patients (Read et al., 2004). Some studies even suggest that adverse events in childhood may increase the risk for subsequent psychosis (Bebbington et al., 2004; Janssen et al., 2004). The mechanisms involved require investigation.

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While dissociative symptoms represent a common consequence of childhood trauma (Chu and Dill, 1990), to our knowledge, only three studies have examined the relationship between a history of childhood trauma and dissociation in psychotic patients. Goff et al. (1991) examined 62 chronically psychotic inpatients and found a self-reported history of childhood sexual or physical abuse in 27 (43%) of the patients. The abused patients scored higher on the Dissociative Experiences Scale (DES; Bernstein and Putnam, 1986). Childhood sexual abuse was more highly correlated with dissociation than childhood physical abuse. Greenfield et al. (1994) found that in 38 patients admitted for first episode affective psychotic disorder, 20 (53%) reported childhood sexual abuse, childhood physical abuse, or both. Patients with experiences of childhood abuse reported significantly more dissociative symptoms. Holowka et al. (2003) reported relationships between different types of childhood trauma and dissociative symptoms in a sample of 26 predominantly male schizophrenic outpatients. They used the Childhood Trauma Questionnaire (CTQ; Bernstein and Fink, 1998) to examine a wider range of traumatic experiences, but no information was provided on the extent of the different types of trauma. Their study found emotional abuse to be highly correlated with the DES.

While the results of these studies are intriguing, they share some methodological shortcomings. Above all, the severity of psychotic symptoms was not assessed in all studies, and their relationship with dissociative phenomena was not investigated. The objective of the present study, therefore, was to examine the relationship between childhood traumatic experiences and dissociation, taking into account severity of psychotic symptoms.

METHODS

Participants

The participants were female patients of a specialized ward for schizophrenia and other psychotic disorders at the university hospital Hamburg-Eppendorf. Inclusion criteria were a diagnosis of schizophrenia (20), schizophreniform (2) or schizoaffective disorder (8), female sex, and written informed consent. Of 47 consecutively admitted female patients, 14 were not approached because of very brief admissions (8), discharge against medical advice (3), or the level of

TABLE 1. CTQ—Subscale Scores and Categories ($N = 30$)

CTQ Subscale	Score Mean (*SD*)	CTQ Category		
		No Abuse/Mild	Moderate to Severe	Severe to Extreme
Sexual abuse	7.4 (3.3)	$N = 19$ (63%)	$N = 10$ (33%)	$N = 1$ (3%)
Physical abuse	7.8 (4.4)	$N = 24$ (80%)	$N = 3$ (10%)	$N = 3$ (10%)
Physical neglect	8.7 (3.4)	$N = 19$ (63%)	$N = 5$ (17%)	$N = 6$ (20%)
Emotional abuse	11.5 (5.6)	$N = 18$ (60%)	$N = 5$ (17%)	$N = 7$ (23%)
Emotional neglect	13.0 (5.5)	$N = 17$ (57%)	$N = 6$ (20%)	$N = 7$ (23%)

persisting psychotic symptoms (3). Another three patients chose not to participate after the aims of the study had been explained. The final sample consisted of 30 female patients aged 18 to 60 years ($M = 34.6$; $SD = 5.5$).

Procedure and Measures

Diagnoses were made using the MINI International Neuropsychiatric Interview (Lecrubier et al., 1997) and the psychosis section of the Structured Clinical Interview for DSM-IV (First et al., 1996).

Psychotic symptoms were measured using the Positive and Negative Syndrome Scale (PANSS; Kay et al., 1987) at admission and again at the main interview by psychiatrists blind for trauma history. The main interview took place when the patients were considered sufficiently stable by the therapeutic team ($M = 34.7$ days after admission; $SD = 19.4$). At this time, PANSS scores had significantly decreased ($M = 58.4$ vs. $M = 75.6$ at admission; $p < 0.001$). During the main interview, patients were asked to complete a German version of the DES (Bernstein and Putnam, 1986; Spitzer et al., 1998). The DES has become the most widely used self-report measure of dissociation. The German version yields good to excellent statistical parameters similar to the original version (test-retest coefficient = .88; Cronbach $\alpha = .94$; split-half-coefficient = .90; Spitzer et al., 1998).

Following stabilization, the CTQ (Bernstein and Fink, 1998) was administered (after the DES). This widely used 28-item self-rating instrument comprises five subscales covering sexual, physical, and emotional abuse and physical and emotional neglect. To assess the stability of DES scores in our sample, we had also asked participants to complete the DES at admission, as soon as their clinical status allowed it. While 29 patients completed the DES at the main interview, we obtained DES scores for 15 patients at admission.

The association between dissociative symptoms and childhood traumatic experiences was analyzed by the Spearman correlation coefficient. The level of significance was set at $p = 0.05$ for all tests (one-tailed).

RESULTS

The percentages reporting each of the adverse childhood events, at at least the moderate to severe level, were as follows: physical abuse, 20%; sexual abuse, 37%; physical neglect, 37%; emotional abuse, 40%; and emotional neglect, 43%. The majority (73%) had suffered at least one of these events, and 40%, two or more.

The total score of the CTQ ($M = 48.5$; $SD = 18.3$) and all subscales were elevated compared with the general population. For instance, Scher et al. (2001) found a mean total score of 31.8 ($SD = 11.2$) in a community sample. The elevated scores were especially striking in the case of emotional abuse ($M = 11.5$; $SD = 5.6$) and emotional neglect ($M = 13.0$; $SD = 5.4$). Eight patients (27%) had scores indicating severe to extreme abuse on at least one of these two subscale scores, according to the criteria recommended by the developers of the CTQ (Bernstein and Fink, 1998; Table 1).

At admission, significant correlations were found between the CTQ total score and the amnesia subscale (Carlson and Putnam, 1992) of the DES ($\rho = .71$; $p = 0.003$). This scale also showed significant correlations with emotional abuse ($\rho = .55$; $p = 0.034$) and physical neglect ($\rho = .58$; $p = 0.023$). At admission, no other significant correlations were found between the DES total score or subscales of the DES, and the CTQ scores. At admission, the global score as well as the total score of the PANSS showed significant correlations with physical neglect ($\rho = .35$; $p = 0.039$). No other significant correlations were found between acute psychotic symptoms and the CTQ scores.

When patients were stabilized and participated in the main interview, the correlation between the amnesia subscale of the DES and the CTQ subscale "emotional abuse" remained significant ($\rho = .34$; $p = 0.032$). The correlations between the amnesia subscale of the DES and the CTQ total score ($\rho = .30$; $p = 0.053$) and the CTQ subscale "physical neglect" ($\rho = .17$; $p = 0.188$) were no longer significant.

No significant relationships were found between sub and total scores of the DES and the PANSS either at admission or when patients were stabilized. DES total scores at baseline and discharge were not significantly correlated ($\rho = .43$; $p = 0.109$; Table 2). The only significant correlation between admission and main interview was for the DES subscale "depersonalization" ($\rho = .57$; $p = 0.028$).

Analysis of variance with repeated measures demonstrated a significant decrease of the DES subscale scores "depersonalization" and "absorption" and the DES total score over time. The significant reduction in self-reported dissociation on the DES total score equals a large effect size ($M_{t0} = 21.2$; $SD_{t0} = 18.7$ vs. $M_{t1} = 13.2$; $SD_{t1} = 12.9$; $F_{(1,14)} = 5.1$; $p = 0.041$; $\eta^2 = .265$).

TABLE 2. PANSS/DES Scores at Admission (t1) and Primary Interview (t2)

Scales	t1 Mean (*SD*)	t2 Mean (*SD*)
PANSS[a]		
Positive score	19.7 (6.4)	15.7 (6.4)
Negative score	16.9 (7.2)	13.0 (5.1)
Global score	38.9 (10.4)	29.8 (8.5)
Total score	75.6 (20.8)	58.4 (17.2)
DES[b]		
Subscale amnesia	13.2 (15.0)	5.8 (7.9)
Subscale absorption	25.6 (21.5)	15.3 (10.6)
Subscale depersonalization	24.7 (25.3)	13.3 (15.2)
Total score	21.0 (17.7)	11.9 (9.9)

[a]t1: $N = 26$; t2: $N = 29$.
[b]t1: $N = 15$; t2: $N = 29$; DES subscale "amnesia" items 3, 4, 5, 6, 8, 10, 25, 26; DES subscale "absorption" items 2, 14, 15, 16, 17, 18, 20, 22, 23; DES subscale "depersonalization" items 7, 11, 12, 13, 27, 28.

DISCUSSION

In the present study, high prevalence rates of childhood abuse were found in a sample of consecutively admitted, moderately ill schizophrenic inpatients. This confirms previous studies reviewed by Read et al. (2004). Especially striking, however, were the high rates of emotional abuse and emotional neglect, which have been less frequently studied than sexual and physical abuse. Nevertheless, sexual and physical abuse were also found to a higher extent than in the normal population (Scher et al., 2001).

Emotional abuse and physical neglect showed the most pronounced relationships with dissociative symptoms when measured at admission. This is in accordance with the study by Holowka et al. (2003). However, in the current study, the correlations between dissociative symptoms and abuse were no longer significant when patients were stabilized. In addition to this, we observed a significant reduction in self-reported dissociation between admission and the main interview. The tendency to experience dissociative symptoms is considered to be a rather stable trait (Bernstein and Putnam, 1986), and accordingly, the DES usually produces scores that are stable over time, with test-retest reliability coefficients ranging from 0.79 to 0.96 (Bernstein Carlson and Putnam, 1993). Therefore, the changing levels of dissociative symptoms reported by our patients merit some attention.

One possible explanation of the varying scores is the considerable overlap between dissociative phenomena and psychotic symptoms in clinical samples (Ellason and Ross, 1995). In a study using the German version of the DES in a sample of schizophrenic patients, Spitzer et al. (1997) found high correlations between dissociation and self-reported positive symptoms, especially delusions and hallucinations. However, the hypothesis that the variability in DES scores in the current sample could be explained by severity of psychosis somehow affecting perceptions/memories of lifetime dissociative experiences is not supported, because there were no correlations between PANSS and DES.

Our findings indicate that the reliability of self-report measures of dissociation in acutely ill patients is an important issue that requires further study. When dissociative symptoms are examined in more acute phases of the illness, the use of diagnostic interviews in addition to the DES should be considered. Because of the overlap of dissociation with psychotic symptoms, they should be controlled in future studies, and symptom levels should be reported to facilitate an interpretation of the findings.

CONCLUSION

The influence of childhood trauma on dissociative symptoms in psychotic patients and their interaction with other clusters of symptomatology is of great importance from a clinical as well as a theoretical perspective. However, our findings underscore the need to develop an appropriate methodological approach to address these questions adequately. The high rates of childhood abuse and neglect in this sample of schizophrenia-spectrum patients confirm previous studies. Regardless of whether future studies replicate the recent studies (Bebbington et al., 2004; Janssen et al., 2004; Read et al., 2004) suggesting that the relationship is a causal one, the high rates of abuse and neglect in the current sample confirm the need for clinicians to take trauma histories routinely, including those for patients diagnosed as having schizophrenia (Read and Fraser 1998; Young et al., 2001).

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