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Prevalence of premorbid personality disorder and its clinical correlates in patients with delusional disorder

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ABSTRACT

The aim of this study was to investigate the presence of premorbid Personality Disorder (PD) and its relationship with clinical correlates in patients with Delusional Disorder (DD). Eighty-six outpatients with DD whose diagnoses were confirmed using the Structured Clinical Interview for DSM-IV Axis I (SCID-I) Disorders (psychosis module) were evaluated for premorbid PD utilizing the Standardized Assessment of Personality (SAP). Psychopathology was assessed using Module B of SCID-I and the Positive and Negative Syndrome Scale (PANSS); psychosocial functioning was evaluated with the Global Assessment of Functioning scale. Premorbid intelligence was assessed using the Wechsler Adult Intelligence Scale-Third Edition, vocabulary subtest. A sociodemographic-clinical questionnaire was completed. Sixty-four percent of the patients had at least one premorbid PD, the most common being paranoid PD (38.4%), followed by schizoid PD (12.8%). The presence of at least one premorbid PD was significantly associated with higher scores for psychopathology, in particular, on the affective dimension of DD symptoms. However, the presence of premorbid PD was not associated with psychosocial functioning. Each of the premorbid PD was associated with different psychopathological profiles. Premorbid PD is a relevant phenomenon in DD, given its high prevalence and comorbidity, its influence on clinical correlates and its potential ability to predict specific sub-syndromes.

1. Introduction

In the early twentieth century, Kraepelin (1919) defined paranoia – currently Delusional Disorder (DD) – as a chronic, systematized, delusional condition with an insidious onset that does not course with hallucinations or personality deterioration, unlike dementia praecox (schizophrenia). Later, Kretschmer (1934) emphasized the importance of premorbid Personality Disorder (PD) in paranoia to suggest that there is a continuum between these two domains, with a specific transition from constitution personality to paranoia. In particular, this author described a type of paranoia, "sensitive delusion of reference", characterized by being triggered in the setting of a premorbid personality with sensitive and avoidant traits, adverse biographic influences, and reactive depression to adverse social circumstances, as well as by not evolving to schizophrenia (Kretschmer, 1934). In this line, Jaspers (1963) introduced the phenomenological concept of "development" as it relates to paranoia, as opposed to the concept of "process" in schizophrenia, noting that the genesis of delusions is understandable, because they arise from a prone personality structure (paranoid) that becomes delirious without deconstructing in response to adverse environmental events. In contrast, Schneider (1959) described paranoia as a peripheral type of schizophrenic psychosis and advocated a categorical approach in which PDs are separate from psychosis (Schneider, 1958), as reflected in DSM-IV (American Psychiatric Association, 1994).

In recent decades, several studies have empirically demonstrated that the presence of premorbid PD in psychotic patients is a relevant phenomenon, given its high rates of prevalence and its influence on clinical expression and psychosocial functioning. A review based on 20 studies found an overall prevalence of premorbid PD in schizophrenia and non-schizophrenia psychotic patients of 39.5% (95% confidence interval, 25.2–55.8%) (Newton-Howes et al., 2008). On the other hand, premorbid PD has been reported to account for 17.0–20.0% of the variance of the psychopathological dimensions in patients with schizophrenia, independently of the psychopathology stemming from the psychotic

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phenomenon (Peralta et al., 1991; Cuesta et al., 2002). Regarding psychosocial functioning in psychotic patients, premorbid personality traits have been reported to predict between 7.0% and 27.0% of shared variance irrespective of psychosis (Lysaker et al., 1998; Lysaker and Davis, 2004a). Similarly, PD has also been associated with other outcome measures such as service utilization in patients with schizophrenia (Wickett et al., 2006).

Although psychiatry has traditionally emphasized the importance of premorbid personality in paranoia (Kretschmer, 1934) and empirical evidence shows that the presence of premorbid PD in patients with schizophrenia spectrum disorders seems particularly germane (Dalkin et al., 1994; Cuesta et al., 2001, 2002; Lysaker et al., 2004b), no systematic study has been specifically designed to evaluate the prevalence of premorbid PD and its clinical correlates in DD patients. The rarity of this disorder (with an estimated incidence of 1–3 new cases per 100,000 annually) (Kendler, 1982a) and the fact that many DD patients do not seek psychiatric help may have led this aspect of DD to be understudied. Therefore, in light of the lack of data concerning DD patients, the two aims of the present study were: (1) to examine the prevalence of premorbid PDs in a clinical sample of patients with a main diagnosis of DD and (2) to investigate whether the presence of premorbid PDs affects clinical expression and psychosocial functioning in individuals with DD.

2. Methods

2.1. Sample

A cross-sectional sample of 106 individuals with a diagnosis of DD were invited to participate in this study after being drawn by simple random sampling from a computerized case register ($n=370$) of five community mental health centers (CMHCs) run by Sant Joan de Déu-Mental Health Services (SJD-MHS) (De Portugal et al., 2008). SJD-MHS is a state-funded institution that provides comprehensive psychiatric care through both community and hospital facilities and serves a population of around 600,000 inhabitants in a well-defined area of southern Barcelona, Spain. The inclusion criteria were as follows: (a) a primary diagnosis of DD (DSM-IV); (b) age over 18 years; (c) residence in the catchment areas of the participating CMHCs; (d) at least one outpatient visit during the 6 months prior to the beginning of the study; (e) referring psychiatrist's approval to participate in the study; and (f) patient's agreement to participate. The exclusion criteria were as follows: (a) diagnosis of mental retardation and (b) unconfirmed diagnosis of DD using the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I) (psychosis module) (Gómez-Beneyto, 1995; First et al., 1997). Of the initial 106 individuals selected from the database, six patients refused to participate in the study, eight patients did not receive the approval of their referring psychiatrist, and six patients did not have a diagnosis of DD confirmed by the SCID-I (three met the criteria for schizophrenia, one for schizoaffective disorder, one for psychotic disorder due to medical disease, and one for psychotic disorder due to substance abuse). Eighty-six patients were included in the study and completed the evaluation, thereby making up the final study sample. All patients were provided with a complete description of the study and gave their written informed consent to participate after they had been invited to do so in a letter from their psychiatrist. The study was approved by the Ethics Committee of the SJD-MHS.

2.2. Variables and instruments

Patients were evaluated by a post-graduate clinical psychologist trained in assessment interview techniques and administration of all the diagnostic, psychopathological, and functional scales.

2.2.1. Confirmation of the diagnosis of DD

The diagnosis of DD was confirmed using the psychosis module of the SCID-I, Clinician Version (SCID-I CV) (Gómez-Beneyto, 1995; First et al., 1997). Patients were assigned to one of seven DD DSM-IV types (persecutory, jealous, somatic, erotomaniac, grandiose, mixed, and non-specified).

2.2.2. Premorbid PD

Premorbid personality traits were assessed using the Standardized Assessment of Personality (SAP) (Mann et al., 1981; Pilgrim and Mann, 1990). The SAP detects the presence and type of PD regardless of the nature of the disease by means of a short, semi-structured interview with an informant (relative or close friend). Questions are adapted to ICD-10 and DSM-IV criteria for diagnosis of PD. The informant had to have known the patient for at least 5 years before the onset of disease and be familiar with his/her behavior in a wide variety of situations. It is made clear to the informant that the interviewer is interested in the personality traits of the patient prior to the onset of the disease. Third persons are more highly valued as informants because it is assumed that patients distort the social dysfunction caused by their abnormal traits. This scale has good psychometric properties for assessing premorbid PD (Mann et al., 1999).

2.2.3. Psychopathology

Psychotic and general psychopathology were assessed using the Positive and Negative Syndrome Scale (PANSS) (Kay et al., 1987; Peralta, 1994). Evidence from factor analyses conducted using the PANSS suggests that a five-dimensional structure appears to provide a better representation of the psychopathology of psychosis (Lindenmayer et al., 2004). As such, the analysis for our study is based on the following five symptom dimensions: (i) Positive Dimension (PANSS-Positive), which includes items related to delusions, unusual thought content, suspiciousness/persecution, and grandiosity; (ii) Excitement Dimension (PANSS-Excitement), consisting of items of excitement, poor impulse control, hostility, and uncooperativeness; (iii) Negative Dimension (PANSS-Negative), including emotional withdrawal, passive social withdrawal, lack of spontaneity/flow of conversation, poor rapport, blunted affect, and active social avoidance; (iv) Cognitive Dimension (PANSS-Cognitive), consisting of conceptual disorganization, disorientation, difficulty in abstract thinking, mannerisms/posturing, and poor attention; and (v) Affective Dimension (PANSS-Affective), consisting of anxiety, feelings of guilt, depression, somatic concern, and preoccupation (Lindenmayer et al., 2004). The mean scores for each symptom domain were calculated. Presence and type of hallucinatory behavior and delusions were assessed using Module B (psychotic and associated symptoms) of the SCID-I CV (Gómez-Beneyto, 1995; First et al., 1997).

2.2.4. Sociodemographic and general data

A systematic inventory was used to gather demographic data (age, gender, and educational level), age at onset of DD, time since onset, form of onset (acute [<3 months] or insidious [>3 months]), type of course (uninterrupted chronic or phasic with total remission), and daily dosage of antipsychotic medication at the time of assessment (in mg/day, chlorpromazine-equivalent). Premorbid levels of intellectual functioning were calculated using the Vocabulary subtest of the Wechsler Adult Intelligence Scale Third Edition (WAIS-III) (Wechsler, 1999; Lezak et al., 2004), and global functioning was assessed using the Global Assessment of Functioning (GAF) scale (American Psychiatric Association, 2000).

2.3. Statistical analyses

Psychopathological and functionality measures were compared between the group presenting at least one premorbid PD and the group without premorbid PD. Data from patients fulfilling diagnostic criteria for each of the five most common premorbid PD types (paranoid, schizoid, schizotypal, obsessive, and avoidant) were compared with those from the rest of the sample. Normality of quantitative data (or transformations of normal data using a natural logarithm of 10) was verified using the Kolmogorov–Smirnov test with a Lilliefors correction. We used the chi-square test to explore the association between the presence of premorbid PD (total and each of the types) and qualitative variables (gender, form of onset, course types, types of hallucinations and delusions, and DD types) with an expected frequency of more than five cases; Fisher's exact test was used in the case of 2×2 contingency tables. Differences between the presence/absence of premorbid PD (total and its types) and non-normal quantitative variables (years of education, duration of illness, symptom dimensions, and psychosocial functioning scores) were measured using the Mann–Whitney test, while differences between the presence/absence of premorbid PD (total and its types) and normal quantitative variables (age, age at onset) were measured using a t test for two independent samples. Variables with fewer than six cases (PD types, types of hallucinations, delusions, and DD types) were not included in those bivariate analyses, because more patients are required to ensure adequate statistical validity of the test (Pett, 1997; Koen et al., 2003). Linear regression models were used to explore the relationship between the presence of at least one PD and psychopathology (total PANSS), each of the five PANSS dimensions (controlling for the rest of the dimensions), and psychosocial functioning (controlling for the total PANSS). We also performed linear regression models to explore the relationship between the five most common PDs with each of the five PANSS dimensions (controlling for the rest of symptomatic dimensions) and psychosocial functioning (controlling for all dimensions). All linear regression models were controlled for the effect of potential covariates such as age, gender, years of education, premorbid intelligence, duration of illness, DD type, and daily dose of antipsychotic medication (in mg/day, chlorpromazine-equivalents). The linear regression models were validated by testing the assumptions of the residuals and reduced using a stepwise method, controlling multicollinearity for a condition index below 15. Statistical significance was set at a two-tailed p value of 5%. SPSS (version 15.5) was used to perform the analyses.