

# The Affective Core of Delusional Disorder

Riccardo Pellegrini<sup>a</sup> José Eduardo Muñoz Negro<sup>b</sup> Rebecca Ottoni<sup>c</sup>  
Jorge A. Cervilla<sup>b</sup> Matteo Tonna<sup>c</sup>

<sup>a</sup>Doctoral Programme in Clinical Medicine and Public Health, University of Granada, Granada, Spain; <sup>b</sup>Department of Psychiatry, University of Granada, Granada, Spain; <sup>c</sup>Department of Psychiatry, University of Parma and Mental Health Unit, Parma University Hospital, Parma, Italy

## Keywords

Delusional Disorder · Guilt · Narcissism · Personality · Shame

## Abstract

The aim of the present study is to investigate the relationship between personality, trait affectivity, and severity of delusions in patients with delusional disorder (DD). Thirty-two outpatients affected by DD were administered the Structured Interview for DSM-IV-TR Personality Disorders (SIDP-IV), the Pathological Narcissism Inventory (PNI), the Positive and Negative Affect Schedule (PANAS), and the Psychotic Symptom Rating Scale (PSYRATS). We analyzed the prevalence of personality disorder in our sample of patients with DD and studied the correlations between the severity of delusions and the different affective variables. Finally, we obtained a multivariate explanatory model of the severity of the delusions. The severity of delusions was directly associated with “grandiose fantasy” item of narcissistic personality and inversely related with the feelings of shame, fear, and guilt. In the multivariate model, the feeling of shame was the only independent variable capable of accounting for the severity of delusions that, in DD patients, would lie on an affective core of shame.

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## Introduction

The description of delusional disorder (DD) as an autonomous mental illness dates back to 1838, when Esquirol made the first comprehensive psychopathological delineation of paranoia [1]. He identified paranoia as a “partial” psychosis characterized as a psychosis consisting only of intellectual symptoms such as delusions [2]. In the same period, Kahlbaum referred to paranoia as a coherent and encapsulated DD [3]. At the beginning of the 20th century, this concept was renewed in Kraepelinian nosographic systematization, which distinguished paranoia from both dementia praecox and maniac depressive illness. Kraepelin described this as a separate and specific illness with a well-systematized and unshakeable delusion, a chronic but not degenerative course, a marginal involvement of affect and no auditory hallucinations [4]. Kraepelin’s view of paranoia was disputed by Bleuler, who introduced the term schizophrenia and widened its boundaries to include DD [5]. Therefore, paranoia sank into obscurity, to be included in the schizophrenic spectrum. We only see the rebirth of paranoia in the early 1980s, with Kendler and Munro [6, 7] who coin it as a separate nosological entity in DSM III-R [8]. Kretschmer

[9] clarified the relationship between paranoia and personality: this author described a type of paranoia referred to as “delusions of relation of the sensitives” (*Beziehungswahn*). According to Kretschmer, paranoid symptoms develop from an affective core of shame due to lifelong conflicts between a strong feeling of inadequacy and an unrequited sense of self-importance. In subjects with both “sensitive” and “insecure” traits of personality, the opposing polarities between “sthenic” (ambition, high self-esteem, latent aggressiveness) and “asthenic” dispositions (shyness, diffidence, and frustration) represent the psychopathological background for intense feelings of shame underlying the delusional beliefs. A specific critical experience often “triggers” the “understandable” development of a delusional system from the affective core of shame.

According to the current diagnostic systems, affective symptoms do not represent a fundamental criterion for the diagnosis of DD [10]. However, numerous studies have highlighted frequent comorbidity between DD and mood disorders [11, 12] and have elucidated the importance of the affective state in the development and persistence of delusions [13, 14]. Thus, various factor analysis studies have identified the existence of a depressive dimension in DD, suggesting a substantial psychopathological heterogeneity in DD [15, 16]. Therefore, the current concept of DD includes different psychopathological dimensions such as paranoid, cognitive, schizoid, and affective [17]. In keeping with this, we can affirm that DD includes an underlying affective dimension that contributes to the development of delusion. Increasing empirical evidence demonstrates the links between affect and paranoia that would constitute a sort of continuum [18–20]. This finding is in line with another study that hypothesizes that paranoid thoughts underpin an inherent affective dimension within that continuum [21]. Examples of such underlying symptomatic dimensions are the models proposed by Keyes who suggests that thought disorder is one component of a wider, “internalizing dimension” that presents across a wide variety of disorders [22].

Very few empirical studies address the link between personality disorder (PD) and DD. About this association, the most comorbid PDs are paranoid PD, followed by schizoid, obsessive-compulsive, and avoidant PDs [23]. Moreover, having at least one PD is associated with higher psychopathological scores on affective dimensions, including floating anxiety, guilt, depression, and somatic obsessions [23]. Another study hypothesized that DD is associated with PD in the general population [24].

Nonetheless, the psychopathological pathways connecting delusions, affectivity, and premorbid personality remain blurred. Therefore, the objective of the present study is to investigate a possible association between trait affectivity, premorbid personality, and the severity of delusional ideation in DD patients.

## Methods

### Sample

The present study recruited outpatients referring to the Personality Disorders Unit of the University Hospital of Parma from January 2015 and December 2016. Inclusion criteria were (1) a primary diagnosis of DD according to DSM-5 [8], as established by Structured Clinical Interview for DSM-5 Axis I disorders, and (2) age over 18 years old. Exclusion criteria were (1) a cognitive impairment (Mini Mental State Examination score lower than 25), which may interfere with the ability to complete diagnostic interviews or questionnaires; (2) substance or alcohol abuse or dependence; and (3) other axis I diagnoses presenting delusional ideation.

### Procedures

Sociodemographic data (age, sex, level of education, employment, and civil status) were obtained by asking patients to complete a specific form. Clinical variables such as pharmacological treatment were also collected from clinical records. All subjects completed the following questionnaires:

1. Structured Interview for DSM-IV Personality Disorders (SIDP-IV) is a semi-structured interview aimed at evaluating personality traits and disorders from the patient's perspective [25]. The SIDP-IV is organized by topic sections that are correlated to specific psychological traits or behavioral characteristics. Every criterion must be evaluated on the basis of 4 severity levels.
2. Pathological narcissism inventory (PNI) is a 52-item self-report score assessing seven dimensions of pathological narcissism, spanning problems within narcissistic grandiosity (grandiose fantasy (GF), self-sacrifice, entitlement rage) and narcissistic vulnerability (contingent self-esteem, devaluation) [26].
3. Positive and Negative Affect Schedule (PANAS), a 20-item self-report score for positive affect (PA) and negative affect (NA) [27]. PA reflects the extent to which a person feels enthusiastic, alert, and active; high PA is a state of high energy and total concentration, whereas low PA is characterized by sadness and lethargy. Quite the opposite, NA is a dimension that comprises aversive mood states, including guilt and fear, with low NA being a state of calmness and serenity. These two factors represent affective state dimensions related to underlying affective trait dimensions of positive and negative emotionality.
4. The Psychotic Symptom Rating Scale (PSYRATS) consists of a semi-structured interview that can quantify the severity of delusions (score 0–4). It is composed of two parts: a Hallucinations Scale (HS) and a Delusions Scale (DS). The latter includes six items: duration and frequency of preoccupations, the intensity of distress, amount of distressing content, conviction, and disruption. PSYRATS has good validity and test-retest reliability above all in schizophrenic patients and patients with chronic delusions [28].

**Table 1.** Clinical and sociodemographic characteristics

Sample ( <i>n</i> = 32 patients)		
Age (mean ± DS)		49.20±11.55
Gender (men), <i>n</i> (%)		15 (46.9)
Civil status (no spouse), <i>n</i> (%)		12 (37)
Living status (lives alone), <i>n</i> (%)		9 (28.1)
Education level (in years)		13.3±2.8
Occupational status (unemployed), <i>n</i> (%)		8 (25.1)
PD cluster A, <i>n</i> (%)	<b>Paranoid</b>	10 (31.25)
	Schizoid	0
	Schizotypal	0
PD cluster B, <i>n</i> (%)	Borderline	0
	<b>Narcissistic</b>	1 (3.1)
	Histrionic	0
	Antisocial	0
PD cluster C, <i>n</i> (%)	<b>Avoidant</b>	3 (9.4)
	Dependent	0
	<b>Obsessive compulsive</b>	12 (37.5)

**Table 2.** Pearson's correlation between personality traits, affectivity traits, and severity of delusional ideation

Variables	1	2	3	4	5
1. PSYRAT total scores	–				
2. PANAS guilt	–0.429*	–			
3. Fear	–0.363*	0.318	–		
4. Shame	–0.358*	0.462**	0.400*	–	
5. PNI GF	0.451*	0.224	–0.142	–0.188	–

\*\*  $p \leq 0.01$ . \*  $p \leq 0.05$ .

### Statistical Analysis

We used Pearson's correlations to explore associations between severity of delusions, personality traits, and affective dimensions. Gender differences were evaluated through a Student's *T* test. Subsequently, significant correlations were entered in a linear regression model (enter method) to evaluate the effect of personality traits (SIDP-IV scores), pathological narcissism (PNI subscales), general affective tone (PANAS subscales), and sociodemographic features (independent variables) on PSYRATS scores (dependent variables). A collinearity analysis was performed, and adjusted  $R^2$  was calculated. All statistical analyses were performed with SPSS for Windows (version 23.0; SPSS Inc, Chicago, IL, USA).

## Results

### Clinical and Sociodemographic Characteristics

We included 32 patients: 15 males (46.9%) and 17 females (53.1%). The mean age was  $49.2 \pm 11.5$ . A total of 26 out of 32 patients received a diagnosis of at least one PD (81.2%). The two most frequent PDs that we detected were obsessive-compulsive personality disorder (37.5%)

and paranoid personality disorder (31.2%). The total score of the delusion rate scale was  $19.7 \pm 2.9$  (Table 1). During the study, all patients were taking antipsychotics: 35% were receiving a first-generation antipsychotic, and the remaining 65% a second-generation antipsychotic.

### Associations between Personality and Affectivity Traits and Severity of Delusional Ideation

No association was found between sociodemographic characteristics and level of delusional ideation. Neither specific PD nor PNI subscale was associated with PSYRATS score, except the GF (PNI subscale). Instead, a significant correlation was found between PSYRAT total score and some items of PANAS; in particular, a negative association was found between guilt, fear and shame, and delusional ideation (Table 2). Finally, linear regression model demonstrated that the severity of delusional ideation (PSYRAT score) was negatively related only to shame ( $B = -2.185$ ; CI  $[-4.141; -0.230]$ ;  $p = 0.031$ ) (Table 3).

**Table 3.** Linear regression showing the association between severity of delusional ideation (dependent variable), personality, and affectivity traits

	<i>B</i>	SE	<i>p</i> value	95% CI
Guilt	−0.185	0.572	0.751	(−1.397; 1.027)
Fear	−0.193	0.589	0.747	(−1.441; 1.055)
Shame	−2.185	0.922	<b>0.031</b>	(−4.141; −0.230)
GF	0.130	0.084	141	(−0.048; 0.308)

### Gender Differences

We have added *T* test in the statistics analysis to compare gender differences in our sample, and we did not find a significative gender differences except for the item guilt (man, mean = 2.53, SD = 1.407; woman, mean = 1.44, SD = 0.814;  $t = 2.631$ ;  $p = 0.015$ ).

### Discussion

The present study aims to elucidate the relationship between premorbid personality traits, trait affectivity, and severity of delusional ideation in DD patients. Regarding the relationship between DD and personality, our findings would indicate that the prevalence of PDs is probably higher in DD patients than in the general population. This is in line with the hypothesis that specific PDs are associated with DD [24]. Notably, 81.25% of DD patients in our sample presented a co-diagnosis of PD. The two most frequent PDs were obsessive-compulsive (37.5%) and paranoid PD (31.2%). These data align with a previous study that showed high comorbidity between obsessive-compulsive and paranoid PDs and DD [29].

We found a negative association between PANAS items of shame, guilt, and fear and severity of delusions regarding affectivity traits. By contrast, we discovered a positive association between GF and the severity of delusions. Nevertheless, in the regression analysis, the only variable that could modify the severity of delusions was shame.

In light of these findings, we postulate that shame could be the affective core underlying paranoia, being delusions a defense mechanism for shame. Kretschmer explained the link between shame and delusion, even suggesting that delusional beliefs are a protective “shell” against intense experiences of shame [9]. In this vein, we speculate that the more severe the delusional ideation, the more the underlying experience of shame is covered, thus explaining a negative relationship. In the present study, we also found a negative correlation between guilt and the severity of delusions. Some authors have considered guilt as moral shame, therefore intimately linked to the experi-

ence of shame [30]. Indeed, the experience of guilt specifically evokes “being in the melancholic world” and consequently depressive pathogenesis. This result therefore confirms previous studies highlighting the importance of a depressive dimension as a pathogenetic pathway to paranoia [11, 17, 31].

Furthermore, we found a positive correlation between delusion severity and GF, but not between shame and GF. According to Kohut and Gabbard, the core of narcissistic dysfunction lies in defects in self-structure, emotional dysregulation, and maladaptive defensive strategies used in response to psychological and interpersonal stressors such as pervasive feelings of shame [32, 33]. Therefore, delusions could be one of these maladaptive defenses against feelings of shame. Moreover, Gabbard proposes two subtypes of the narcissistic disorder, the oblivious and the hypervigilant [33]. We theorized that the latter could be closer to paranoia. Finally, concerning the absence of relation between shame and GF, remarkably, some authors have described the absence of inverse correlation between shame and PNI score [34].

The present study should be considered in light of some limitations. It is cross-sectional, and the sample size is relatively small. Enrolling patients with DD willing to collaborate in this study was not a simple task. Replication of the study with a larger sample size would be desirable. Due to its cross-sectional study, we cannot determine which disorder (affective or delusional) precedes which, so ideally a longitudinal study could be developed. It would have been beneficial to know the different clinical subtypes of DD, but unfortunately, this information is lacking. However, this classification based on the delusional theme is unfounded in empirical studies [17]; therefore, it does not seem predictive of clinical outcomes [35].

Regarding diagnostic instruments, we should underlie that PSYRATS is an exclusively descriptive score and does not evaluate qualitative aspects. Finally, we were not able to control possible biases, such as the absence of data about the insight and self-stigma. It would therefore be advisable to replicate the study, including these factors.

To conclude, the severity of delusional beliefs in DD patients is underpinned by an affective core of shame



upon predisposing personality traits. These findings could help to develop a psychotherapeutic approach for delusional patients. In this vein, cognitive behavioral therapy targeted at delusional-related affective states effectively alleviates enduring delusional syndrome [36].

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## Statement of Ethics

This study protocol was reviewed and approved by the Parma Ethics Committee in June, approval number 22619. All patients received a complete and exhaustive description of the survey after the achievement of clinical stabilization. The authors stated that subjects had given their written informed consent.

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## Conflict of Interest Statement

The authors have no conflicts of interest to declare.

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## Author Contributions

Each author gave an essential contribution in writing this manuscript. R.P. wrote the paper, J.E.M.N. contributed in writing and review, J.A.C. contributed in review, R.O. analyzed data, and M.T. designed and mainly revised the research.

## Data Availability Statement

All data generated or analyzed during this study are included in this article. Further inquiries can be directed to the corresponding author.

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