Persecutory Subtype Of Delusion Disorder: Study Of Series Of 129 Cases

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Objective. *The objective of this study is to investigate the demographic, environmental, psychosocial and clinical characteristics of the persecutory subtype in a group of patients with delusional disorder (DD).* ***Methodology****. Retrospective descriptive study of DD cases registered at Psychiatry and Mental Hygiene Clinic of Cordoba according to DSM-IV-TR criteria was conducted. We obtained a sample of 261 DD patients who met the inclusion criteria; of them, 129 cases show persecutory subtype. Data and variables collected were divided into 4 groups: I. Socio-demographic and general data. II. DD risk factors (personal and family). III. DD clinical picture and diagnosis (presentation, symptoms, disability, use of health care resources, treatment, and evolution).* ***Results.*** *The proportion of males versus females of the persecutory subtype was of 1.04. Only 5.4% of patients had primary level of education. At the first visit of the psychiatry clinic, 65.9% of the patients were married and about half of them shared home. About 14.7% of patients had a past history of alcohol consumption, and only 0.8% consumed other drugs. Ideas of reference and of persecution were found in 98.4% and 99.2% respectively.* ***Conclusions.*** *It is necessary to conduct future prospective studies to investigate the risk factors associated with the persecutory subtype of DD.*

Key words: *delusional disorder, paranoia, persecutory subtype, retrospective study, case series.*

Introduction

Delusional disorder (DD), also known as paranoia, is a disorder characterized by the presence of a delusional system. It may present non-prominent hallucinations consistent with the theme of delirium, is characterized by not leading to personality impairment[1] and the patient may think, reason and act like others[2]. Although some progress has been made in the nosology of DD, a consensus on its etiology has not yet been reached. The leading cause for this study is the lack of relevant data. Given that it is an infrequent pathology, which is not recognized, and its pathognomonic manifestations are minimal, studies on DD with DSM criteria and with samples that exceed one hundred cases are scarce[3, 4]. It is estimated that the proportion of people in a population who have the condition of suffering from DD for some time, that is, the prevalence of DD throughout life, is around 0.2%[2] and that the most frequent subtype is the

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persecutory[2, 3, 4, 5].

In a recent review of the literature, Freeman and Garety[6] identified six main causal factors that represent a significant advance in the understanding of persecutory delusions: 1) a thinking style based on worrying, 2) negative beliefs about oneself, 3) interpersonal sensitivity, 4) sleep disorders, 5) anomalous internal experience, and 6) reasoning biases (jump to conclusions). Each has plausible mechanistic links in the occurrence of the paranoia. These causes may be influenced by a number of social circumstances, including adverse events, illicit drug use, and urban settings[6-9]. However, there are few empirical studies of case series with DSM IV-TR criteria on the persecutory subtype [3,4]. The objective of this study is to present the results of a series of 129 diagnosed cases of Persecutory DD from a case registry with DSM criteria that will undoubtedly deepen our understanding of this little-studied DD subtype.

Methodology

Type of Study Retrospective epidemiological study on a case registry on 261 DD patients according to DSM-IV-TR criteria[5].

Study Population. A total of 392 medical records of patients diagnosed and registered with DD according to the ICD-9[10] of the Dispensary of Psychiatry and Mental Hygiene of Córdoba (from now on DPHM) were reviewed in 2011. According to the mental health care network, the DPHM [11] was the provincial outpatient referral center for the referral of all mental disorders, behaving as a case registry and constituting our DD case registry. All of them received a systematic and structured evaluation according to protocols that included DSM-IV-TR diagnostic criteria, finally obtaining 261 patients who were included in this study, whose sociodemographic and clinical characteristics have been described in another article[4].

Inclusion and Exclusion Criteria. The following inclusion criteria were applied to the patients diagnosed with DD and registered within the DPHM to participate in our study: a) Reside in the dispensary's area of influence, b) make at least one visit to the DPHM, c) age 18 or over, d) meet the diagnostic criteria for DD according to DSM-IV-TR, e) meet the procedural diagnosis validation for DD module B (psychotic and concomitant symptoms) of the SCID-I CV, of Psychosis of the Structured Clinical Interview for DSM-IV Axis I Disorder (SCID-I CV)[12]. Patients who met the inclusion criteria were assigned to one of the seven DSM-IV-TR types of DD[5].

The retrospective evaluation to check the adequacy of the DD diagnoses, initially made with ICD-9 criteria, was performed twice, once by a trained pre-doctoral researcher and the other by a clinical psychiatrist. A third senior clinical psychiatrist settled possible controversies.

The exclusion criteria were: a) not meeting the DSM-IV-TR diagnostic criteria, b) not meeting the validation process for diagnostic confirmation contained in module B (psychotic and concomitant symptoms) of Psychosis of the Structured Clinical Interview for DSM-IV Axis I Disorder (SCID – I CV), c) diagnosis of mental retardation, d) suffering from severe hearing/visual deficit, e) not presenting alcohol intake since the diagnosis of DD, and f) direct proof of not wanting to participate in a clinical study. The presence of severe hearing and visual impairment is a known risk factor for the appearance of paranoia[3,13,14]. In order to respect the E criterion of the DSM-IV-TR and to obtain a more homogeneous sample, patients with severe neurological deficits were excluded from our study. However, those cases that presented mild neurological deficit or received corrective medical or surgical treatment that reduced the deficit to the category of mild were included in the study.

Those who met the defined inclusion criteria constituted our final sample of 261 cases. These were assigned according to delusional theme to the following subtypes: Celotypic with 51 cases (19.5%), grandiosity with 31 cases ((11.9%), mixed with 19 cases (7.3%), somatic with 18 cases (6.9%) and erotomaniac with 13 cases (5.0%), and with 129 cases (49.4%) to the persecutory subtype, the object of our case series study. The Provincial Research Ethics Committee of Córdoba approved the content of this work.

Variables of the study. The variables on which information was collected based on protocols were grouped in the following order: I. Variables of sociodemographic and general data,

II. Variables of DD risk factors (family and personal), III. Variables of the clinical picture and diagnosis of DD (presentation, delusional symptoms, functionality and disability, use of health resources, treatment, psychosocial problems, evolution and course).

Data Collection. Data collection was carried out systematically on a questionnaire structure. A protocol was designed for the recording of sociodemographic and general data, based on risk factors suggested by previous research[3, 15, 16, 17].

The information was obtained from medical records, nursing notes, diagnostic tests, hospitalization reports, reports from emergency services, judicial reports, and those prepared by social workers.

In summary, we obtained DD data based on the multiaxial evaluation contained in the five axes of the DSM-IV-TR. In Axis I, which includes clinical disorders and other problems that are the object of clinical attention, the diagnosis of DD was validated with module B (psychotic and concomitant symptoms) of Psychosis of the SCID-I CV for DSM-IV Axis I[12]; Axis II, collected information related to personality disorders collected based on the information protocol of family and personal history and data of relatives close to the patient; Axis III, referring to the patient's medical illnesses, obtained from the medical records and grouped according to their frequency of presentation; Axis IV identifies the presence of psychosocial and environmental problems; and Axis V which, according to standardized scales, evaluated the global activity (EEAG)[5] and disability with the Sheehan Disability Inventory (SDI)[19] that can affect the evolutionary course of serious mental disorders.

Data Analysis Descriptive statistics have been performed, with the calculation of measures of central tendency and dispersion and frequency calculations. The calculations were made with the EPIDAT statistical package version 3.1.

Results

Of the 261 patients diagnosed with DD according to DSM-IV-TR criteria, the most numerous subtype was persecutory with 129 cases (49.4%), compared to the remaining five clinical subtypes: the celotypic with 51 cases (19.5%), the grandiose with 31 cases (11.9%), mixed with 19 cases (7.3%), somatic with 18 cases (6.9%) and erotomaniac with 13 cases (5%).

The male versus female ratio in the persecutory subtype was 1.04 (male/female ratio 1.04: 1). The age of onset of DD was 42.87 (SD = 15.43) years and the request for specialized medical attention was made with a mean age of life of 48.44 (SD = 15.56) years. Only 5.4% of the patients with the persecutory subtype had primary studies. The marital status at the time of the first psychiatric consultation was married in a 46.5%, a 49.6% lived with their family, and 50.4% lived with their unmarried partner. 10.1% lived alone. Marital problems represented 17.1%. Table 1 shows the demographic, environmental, and psychosocial characteristics of the patients with persecutory DD.

In the first support group, the results of Axis IV identified the problems as divorces (10.9%) and change of home (11.6%). Labor problems were present in 51.9% and unemployment in 31.0%. Economic problems in the persecutory subtype were present in more than a third (35.7%) of cases and only 6.2% had psychosocial and environmental problems.

Suspicious personality history was not described in the persecutory subtype and those with mild sensory deficit, such as deafness or premorbid blindness in 9.3%. A 14.7% previously consumed alcohol at the start of DD, while a 0.8% consumed other substances. Stressful events three months before the start of TD were found in 24%.

The initiative to request treatment for the patient started with a referral from a doctor in 43.4% and their own family in 19.4%, compared to 12.6% from spontaneous initiatives by the patients themselves (Chi-square, $p = 0.039$), which corroborates the data collected in previous studies by De Portugal (2008) and González-Rodríguez (2014) stating that these patients mostly do not seek psychiatric help promptly by themselves. The delay time from the onset of symptoms to the moment of receiving psychiatric care was 42.40 (SD = 99.11) months. The total number of consultations made by the patients was 6.97 (SD = 8.60). Table 2 presents the clinical characteristics of the persecutory subtype in patients with DD.

Table 1. Demographic, environmental, and psychosocial characteristics of patients with a persecutory subtype of Delusional Disorder.

Variable	Persecutory subtype*
Men	66 (51.2%)
Age	48.44 (DE=15.56)
Schooling <7 years	44 (34.1%)
Unemployed	52 (40.3%)
Living as a couple	65 (50.4%)
Number of children	1.65 (DE=2.21)
Living alone	13 (10.1%)
Psychiatric family history	31 (24.0%)
Personal medical history	21 (16.3%)
Premorbid deafness blindness	12 (9.3%)
Immigration / Emigration	23 (17.8%)
Drug abuse history	1 (0.8%)
Alcohol consumption history	19 (14.7%)
Legal problems	15 (11.6%)
Imprisonment	3 (2.3%)
Stressors >3 months	31 (24.0%)
Heteroaggressiveness	19 (14.7%)

**Mean and standard deviation for quantitative variables and frequency for qualitative variables.*

Delusions of reference and of persecution in the persecutory subtype were presented in 98.4% and 99.2% of the cases respectively; however, delusions of grandiosity (4.7%) and somatic (5.4%), were less frequent. Non-prominent auditory hallucinations, consistent with the delusional theme, were present in 39.5%. The persecutory subtype showed little presence of polythematic or mixed delusions (0.8%).

The functionality of the persecutory DDs was low, with scale values EEAG(GAF) of 28.57 (DE=4.47) and the SDI total showed high disability, with high values of 68.91 (DE=21.11).

Suicidal behavior was found in 6.20% of the cases with persecutory DD. The characteristics of the case series study on suicidal behavior in the remaining subtypes of DD, among which the persecutory clinical subtype presented this behavior more frequently, are detailed in another article [20].

Discussion

The objective of our study was to present the sociodemographic, personal, familiar, and clinical characteristics of a series of 129 cases diagnosed with persecutory subtype DD from a Case Registry with DSM criteria. Our objective was to deepen the knowledge of the persecutory clinical subtype in this little-studied DD.

Our study[4] supports that, within the variety of clinical subtypes of DD, persecutory is the one that occurs most frequently in the population, with 49.4% out of 261 cases. These data agree with studies carried out with DSM criteria by Yamada and collaborators (1998) with 51%, out of 54 cases[21], Hsiao et al. (1999) with 70.9%, out of 86 cases[22], Maina et al. (2001) with 54.4%, out of 64 cases[23], De Portugal and collaborators (2008) with 70.9%, on 370 cases [24], and González-Rodríguez and collaborators (2014) with 74.2%, out of 97 cases[25].

Before drawing conclusions from the results of

Table 2. Clinical characteristics in patients with persecutory subtype Delusional Disorder.

Variable	Persecutory subtype*
Reference delusions	127 (98.4%)
Persecution delusions	128 (99.2%)
Grandiosity delusions	6 (4.7%)
Somatic delusions	7 (5.4%)
Other delusions	7 (5.4%)
Auditory hallucinations	51 (39.5%)
Visual hallucinations	18 (14.0%)
Other hallucinations	4 (3.1%)
EEAG	28.57 (DE=4.47)
SDI 1 individual	26.40 (DE=5.59)
SDI 2 stress	9.17 (DE=1.75)
SDI 3 social support	33.33 (DE=20.40)
SDI total	68.91 (DE=21.11)
Total number of consults	6.97 (DE=8.60)
Number of emergency room visits	10 (7.8%)
Number of hospital admissions	1.23 (DE=2.15)
Number of days off work	82.28 (DE=320.12)
Compliance with antipsychotic treatment	79 (61.2%)
Depression treatment	57 (44.2%)
Monothematic evolution of delirium	128 (99.2%)
Chronic uninterrupted course of delusional disorder	80 (62.0%)

** Average and standard deviation for quantitative variables and frequency for qualitative variables.*

this study, we must evaluate the possible biases and / or limitations in the methodology used. Our results must be interpreted with caution due to the size of the sample and the type of study. It is a retrospective study of a Case Registry based on the retrospective exploration of the records obtained from different psychiatrists; therefore, the patients and their relatives were not interviewed by us. Instead, we collected the data from a retrospective examination, which was carried out systematically and in a structured way, of the medical records according to protocols with DSM-IV-TR criteria[5], which were then used for a complete retrospective medical evaluation of the records and verified the diagnosis, based on ICD-9 criteria, using SCDI-I. Accuracy can vary between different professionals, thus constituting potential biases. However, it must be considered that the professionals had a protocolized model of the clinical history that allowed obtaining the data in a way that reduced variability.

The main strength of this study lies in providing a clinical description of the persecutory subtype of DD based on the multiaxial model of the DSM-IV-TR[5], which provides a biopsychosocial description of the patient's clinical condition, encompassing mental and the non-mental pathology along with the psychosocial environmental factors. The WHO[16] has already pointed out the importance of the so-called "social determinants of disease" and the consequences of this on the functioning of the individual and their quality of life. The purpose of multiaxial diagnosis is articulating or structuring the fundamental components of mental illness along

with describing not only the illness, but the total condition of the patient. The latter includes the context of the disease and its impact on the individual's functioning.

Axes I, IV, and V were evaluated according to standardized protocols. The type of study did not facilitate obtaining information on the existence of previous personality disorders based on standardized protocols (Axis II). However, the information from relatives and close friends of the patient allowed obtaining information related to these issues. The Axis III data, referring to the patient's medical illnesses, although not coded according to the ICD-9, were obtained from the medical records and grouped according to their frequency.

At the level of training, more than a third of the patients (34.1%) had less than 7 years of schooling, while their marital status at the time of the first psychiatric consultation was "married" in 46.5% of the persecutory group; both results are consistent with those of De Portugal et al. (2008)[24]. Half (50.4%) of the registered patients lived with a partner. The presence, in the studied patients, of 17.1% of marital problems and 14.7% of episodes of heteroaggressiveness, can approximate the knowledge of the impact of the disease in the life of the couple and in the family environment.

In our study, a history of psychiatric disorders was found in less than a quarter of the patients. Neither medical nor psychiatric personal history were frequent among the patients with the persecutory subtype (16.3%). In contrast, De Portugal et al.[24] reported 6.4% of family history of schizophrenia in a sample of 164 persecutory cases and 13.9% in another study of 51 cases[26]. We did not report any case.

Possible risk factors related to DD cited in the literature[3, 15, 17] include a history of sensory deficits such as deafness or premorbid blindness. For our study, the values obtained were irrelevant (9.3%) We do agree on the presence of immigration history (17.8%) with De Portugal et al.[24] who reported 24.4%.

Also, a history of alcohol and substance use was not frequent among the study patients. However, De Portugal and Cervilla (2004) reported a higher comorbidity of addictive disorders in the persecutory subtype of DD[3].

Our results suggest that in our study, unforeseen events or stressful events that occurred three months before the onset of DD do not represent a significant risk factor, taking into account that 3 out of 4 patients did not suffer any stressful circumstances three months before the first symptoms. However, De Portugal et al. (2009) found stressful events in 32.5% of 51 cases, that is, in almost a third of the cases[26].

The age of onset of the persecutory subtype was 42.9 years old, an age very similar to 40 years old found in the DELIREMP study by De Portugal and collaborators[26] with 51 cases of persecution out of 86 DD, which suggests that this thematic content usually appears in middle age[27]. A particularity of the persecutory subtype in our study was that the insidious form of presentation, greater than three months, was more prevalent (18.4%), which in the study DELIREMP (44.1%)[26].

The initiative to request treatment for the patient was significant (Chi-square, $p = 0.036$), starting from the first medical referral, with a 43.4% and the initiative of one's own family in second place, with a 19.4%.Only a 13.2% spontaneously attended the consultation. These patients, for the most part, do not seek psychiatric help promptly on their own and this shows a delay time of42.40 (DE=99.11) months from the onset of symptoms to the moment of receiving psychiatric care. Considering that 86.05% of all cases with persecutory DD live in a family environment, this delay could suggest the existence of a long period of tolerance towards delusional symptoms of the patient by the families and their social environment.

The ideas of reference and of persecution, which are usually intertwined, forming part of the dynamism of psychotic discourse of the persecutory subtype[27] , were found in practically all the patients studied (> 98%). While grandiose, somatic and other delusions were less frequent (<6%). Non-prominent auditory hallucinations were found in less than half of the patients. This suggests that the ideas of reference and of persecution are key in the diagnosis of the persecutory subtype of DD. However, De Portugal et al.[24] reported self-referenced ideas in 52.6% and non-prominent auditory hallucinations in 9.6%, which could be attributed to the dynamics of psychotic discourse itself and the study design.

Suicidal behavior in the persecutory subtype was present in 6.20% of the cases. We reported in our case series[20] that compared to the rest of the clinical subtypes of DD, the persecutory subtype was the one that presented this behavior more frequently. It also presented delusions of reference and persecution in the psychotic discourse in practically 70% of the patients of the suicidal population object of this study. Thus, the presence of delusions of reference and persecution could pose a significant risk for the suicide attempt. It suggests the need to systematically identify suicidal ideation and to carefully monitor DD patients, in particular those of the persecutory subtype.

The EEAG scale presented low values of 28.57, which reveals low functionality. De Portugal et al. reported higher values of 63.8[26] and 50.35 [24]. On the contrary, the total SDI presented high values of 68.91, indicating severe disability, and these authors reported lower SDI values, which could also be attributed to the size and characteristics of the samples[24].

The variable total number of consultations made by patients presented values of 6.97. However, De Portugal and Cervilla[3] found a much higher use of hospital resources in the persecutory subtype, although this could be due to the different organizational systems of mental health care that governed each study and the standards used.

Adherence to antipsychotic treatment and prescription of antidepressants was relatively high (61.2% and 44.2%, respectively) in these patients De Portugal et al. find lower antidepressant figures, 27%[24]. According to Vorontsova and collaborators, the improvement of the depressive picture reduces the persecutory symptoms[28].

Although certain advances have been made in the knowledge and characterization of the delirium of the persecutory subtype that have facilitated the expansion of the definition that the DSM-V collects, which advocates that this subtype applies when the central theme of delusion implies the belief of the individual that they are conspiring against him, or that they deceive him, spy on him, follow him, poison him or drug him, defame him, harass him or prevent him from achieving long-term goals [2], compared to the concise definition contained in the DSM-IV-TR[5] — delusional ideas that the person (or someone close to them) is being harmed in some way — or the interesting line of work and analysis that the contribution of Trower and Chadwick[29] supposed, distinguishing in this type of delusions to the degree that subjects with paranoid delusions believe they deserve persecution, damage or harm, giving rise to the so-called paranoia **«poor me»** where the persecution is unfair, and to paranoia «bad **me»** — "because of me" — where the persecution is produced by guilty behavior. Although this distinction of paranoia in **«poor me»** and **«bad me»** could represent separate phases of an unstable phenomenon as noted by Melo et al.[30], however, it has facilitated the promotion of a clinical treatment for this main psychiatric problem through a cognitive therapeutic approach, since persecutory delusions are seen as beliefs of threat, developed in the context of genetic and environmental risk and maintained by various psychological processes, that include excessive worry, low self-confidence, intolerance, anxious affect, reasoning biases and other anomalous internal experiences. Thus, the therapeutic use of search for security allows the elaboration of a clinical strategy since this security must be re-learned, entering feared situations after reducing the influence of maintenance factors we have cited[31].

Despite these discrete advances, it is still necessary to evaluate the treatment lines of re-education of reasoning undertaken and to further deepen the knowledge of this clinical subtype by conducting future prospective studies that integrate homogeneous criteria to investigate the risk factors that lead to the appearance of the persecutory subtype of DD.

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