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Differentiating schizoaffective and bipolar I disorder in first-episode psychotic mania

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ABSTRACT

Objective: This study aims to differentiate schizoaffective disorder (SAD) and bipolar-I-disorder (BD) in first-episode psychotic mania (FEPM).
Methods: All 134 patients from an epidemiological first-episode psychosis cohort (N = 786) with FEPM and an 18-month follow-up final diagnosis of SAD (n = 36) or BD (n = 98) were assessed with respect to pre-treatment, baseline and outcome differences. Second, patients with baseline BD who shifted (shifted BD) or did not shift to SAD (stable BD) over the follow-up period were compared regarding pre-treatment and baseline differences.
Results: SAD patients displayed a significantly longer duration of untreated psychosis (DUP; effect size r = 0.35), a higher illness-severity at baseline (r = 0.20) and more traumatic events (Cramer-V = 0.19). SAD patients displayed a significantly higher non-adherence rate (Cramer-V = 0.19); controlling for time in treatment and respective baseline scores, SAD patients had significantly worse illness severity (CGI-S; partial $\eta^2 = 0.12$) and psychosocial functioning (GAF; partial $\eta^2 = 0.07$) at 18-months, while BD patients were more likely to achieve remission of positive symptoms (OR = 4.9, 95% CI = 1.8–13.3; p = 0.002) and to be employed/occupied (OR = 7.7, 95% CI = 2.4–24.4, p = 0.001). The main discriminator of stable and shifted BD was a longer DUP in patients shifting from BD to SAD.
Conclusions: It is difficult to distinguish BD with psychotic symptoms and SAD in patients presenting with FEPM. Longer DUP is related to SAD and to a shift from BD to SAD. Compared to BD, SAD had worse outcomes and higher rates of non-adherence with medication. Despite these differences, both diagnostic groups need careful dimensional assessment and monitoring of symptoms and functioning in order to choose the right treatment.

1. Introduction

Despite the ongoing controversy on the diagnostic entity of schizoaffective disorder (SAD) and its distinction from bipolar I disorder (BD) or schizophrenia (Cheniaux et al., 2008, 2009), it is a clinical reality that a subgroup of patients with psychosis suffers from a combination of mood unrelated psychotic episodes and alternating depressive and manic syndromes with psychotic symptoms. Compared to patients with schizophrenia or bipolar I disorder, such a combination may need specific treatment including pharmacotherapy and psychosocial interventions (Murru et al., 2011).

However, in first-episode psychotic mania it is difficult to foresee whether a patient will eventually have SAD or BD or, specifically, if initially diagnosed with BD, whether the patient will shift to SAD during the course of treatment. In the first and only study on this topic so far, Conus et al. (2010a) reported the following differences between SAD and BD: lower premorbid functioning level, longer duration of prodrome and untreated psychosis, higher severity of positive symptoms at first presentation and, at 12 months follow-up, more severe negative symptoms and a poorer functional level. This study, however, has one important limitation: data were not derived from a representative cohort; this suggests that the inclusion of patients presenting with a high level of severity of both psychotic and manic syndromes and high rates of comorbidities (e.g. substance use disorders) may have been limited.

1.1. Aims of the study

The aims of this study were to (1) differentiate patients presenting with first-episode psychotic mania (FEPM) with a discharge diagnosis

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of schizoaffective disorder (SAD) and those with a discharge diagnosis of bipolar I disorder (BD) in terms of pre-treatment, baseline and outcome characteristics and (2) assess pre-treatment and baseline differences between FEPM patients with baseline BD who shifted (=shifted BD) or did not shift to SAD (=stable BD) within an 18-month follow-up period.

2. Materials and methods

2.1. Context and sample

The Early Psychosis Prevention and Intervention Centre (EPPIC) is a comprehensive program for young people aged 15–29 years experiencing their first treated episode of psychosis. Treatment spans an average of 18 months. The EPPIC catchment area covers the northwestern regions of Melbourne, Australia. There is a lack of other facilities for the target population in these regions and a scarceness of private psychiatrists. Leakage to private facilities outside the catchment is rare. EPPIC therefore ascertains a treated epidemiological sample of FEP patients (McGorry et al., 1996). The First Episode Psychosis Outcome Study (FEPOS) is a file audit study of all 786 first-episode patients who were admitted to EPPIC between 1998 and 2000 (Lambert et al., 2005b; Conus et al., 2007; Schimmelmann et al., 2007, 2008; Cotton et al., 2009; Robinson et al., 2009; Conus et al., 2010a, 2010b; Robinson et al., 2010; Schimmelmann et al., 2011a, 2011b; Cotton et al., 2012).

Of the 786 patients admitted, eighty-two (10%) of the patients' files had been transferred to other services and 43 (5%) patients were excluded because they had a non-psychotic diagnosis at discharge. Of the remaining 661 patients, 182 (27.5%) had a final 18-month diagnosis of SAD or BD. Patients initially presenting with a first-episode manic–psychotic syndrome (regardless of initial psychosis diagnosis) were selected. To ensure the inclusion of clearly manic patients, only those who fulfilled the criterion of at least ≥4 points (moderately to very severely manic) in the mania subscore of the Clinical Global Impression – Scale for use in BD (CGI-BP; Spearing et al., 1997) were included. Data of 134 patients (73.6%) were analyzed, 98 (73%) of those received a final diagnosis of BD and 36 (27%) with a final diagnosis of SAD.

2.2. Assessments and measures

For each patient treated at EPPIC, information on pre-treatment, baseline (admission to EPPIC), treatment and outcome characteristics are systematically documented in a structured file. Assessments are based on the Royal Park Multi-diagnostic Instrument for Psychosis (RP-MIP; McGorry et al., 1990a, 1990b). Each file contains information compiled during the 18 month treatment period from various sources using high quality assessments carried out by trained clinicians. Two experienced psychiatrists assessed all files using a standardized questionnaire (Early Psychosis File Questionnaire, EPFQ; Conus et al., 2007).

Pre-treatment-, baseline-, treatment and outcome-variable: *Premorbid functioning*, was assessed with the GAF (American Psychiatric Association, 1994).

Baseline-, treatment and outcome-variables: *Severity of illness* with the CGI-S (Guy, 1976); *employment/occupation* (yes/no) with the MVCI (Tohen et al., 2000a, 2000b); *lack of insight* into illness on the basis of one item with anchors ranging from lack of insight to partial and full insight (Conus et al., 2007).

Pre-treatment variables: *gender*; *family history of psychosis* (yes/no) rated as present in a first or second degree relative (Morley et al., 2008); *traumatic history* (yes/no) refers to sexual abuse (sexual molestation and/or rape) and/or physical abuse (physical attack or assault or being repeatedly beaten by parents, relatives, or caregivers during childhood (Conus et al., 2009, 2010b)); *criminal justice history* (yes/no) was considered if there was mention in the file of previous contact with the legal system for any form of conviction; *age at onset of psychosis* was defined as the age when one first sustained positive psychotic symptoms occurred according to the DUP scale (McGorry et al., 1990a, 1990b); *duration of untreated psychosis* with the DUP scale, for detailed procedure see Schimmelmann et al. (2008); lifetime SUD with the DAAS (Lambert et al., 2005a); for detailed procedure see Lambert et al. (2005a); *past suicide attempts* according to ICD-10 classification (Dilling and Dittmann, 1990).

Baseline variables: *severity of mania* with the CGI-BP (Spearing et al., 1997); *age*; *living with family* (yes/no) with the MVCI (Tohen et al., 2000a, 2000b); and *co-morbid SUD* with the DAAS (Lambert et al., 2005a).

Treatment and outcome variables: *Time in treatment* was calculated on the basis of the regular 18-month treatment in EPPIC and, in the case of service disengagement, the time point when a patient dropped out of treatment; *service disengagement* was defined as present if patients actively refused any contact with the treatment facility or were not traceable (for detailed procedure see Conus et al., 2010c and Schimmelmann et al., 2006); *persistent SUD* with the DAAS (for detailed procedure see Lambert et al., 2005a); *medication non-adherence* was defined according to Robinson et al. (2002) as failure to take medication for 1 week or longer (for detailed procedure see Lambert et al., 2010); *suicide attempts in treatment* according to ICD-10 classification (Dilling and Dittmann, 1990); *hospital admission* (yes/no); *remission of positive symptoms* (yes/no) was defined as receiving a score of no worse than "mild" (score≤3) in the CGI-S on discharge from the service or time of service disengagement (according to Lambert et al., 2008).

2.3. Diagnostic assessment, validity, and inter-rater reliability

Clinical diagnoses according to DSM-IV criteria (American Psychiatric Association, 1994) at EPPIC are the consensus result of an intensive diagnostic and treatment process, first within the initial 6 weeks of admission by well-trained clinicians working in a specialized assessment and crisis assertive community treatment team, and then at discharge based on all available information. The discharge diagnoses were used to differentiate SAD and BD in this study. Diagnoses were extracted from the files by the principal investigators (ML and PC). In case of disagreement with clinical diagnoses reported in the file, a consensus rating between both research psychiatrists and the patient's case manager was performed (Schimmelmann et al., 2005). Validity of the FEPOS diagnoses was established by the following procedure: between 1998 and 2000, 230 of the 786 patients treated at EPPIC have been included in prospective trials. Their main and co-morbid diagnoses were assessed within 6 weeks of admission using the Structured Clinical Interview for DSM-IV (SCID-I/P; Ventura et al., 1998). The randomly selected SCID and FEPOS diagnoses of 115 patients were compared. The calculated kappa values revealed a very good concordance for both psychosis diagnoses (kappa=0.80) and co-morbid substance use disorder (SUD) diagnoses (kappa=0.74). Inter-rater reliability has been established by comparing baseline ratings given independently by both main investigators in a randomly selected sample of 40 files stratified by time, on the following scales: CGI, GAF, and insight. Analysis revealed a good to very good inter-rater reliability with kappa values ranging from 0.80 to 0.90 (CGI-S: 0.87, GAF score: 0.88, insight score: 0.89).

2.4. Data analysis

Patients with discharge SAD and BD were compared with respect to pre-treatment, baseline, and treatment characteristics using Mann–Whitney U-tests when the dependent variable was continuous and chi square analysis (χ^2), when the dependent variable was categorical. With respect to outcome differences in terms of CGI-S and GAF, two one-way analyses of covariance (ANCOVAs) were specified controlling for time and treatment and the respective baseline scores. For differences in remission of positive symptoms and employment/occupation rates, two logistic regression analyses were specified with time in service and the respective baseline values (CGI-S and employment/occupation)