Twelve-Month Diagnostic Stability of First-Episode Psychoses

Homayoun Amini, Javad Alaghband-rad, Abbas Omid, Vandad Sharifi, Farzad Momeni, and Zahra Aminipour
Roozbeh Hospital, Tehran University of Medical Sciences, Iran

Rozita Davari-Ashtiani
Imam Hossein Hospital, Shahid Beheshti University of Medical Sciences, Iran

Published online November 7, 2004

Objective. To assess the short-term stability of DSM-IV and ICD-10 diagnoses in a group of patients with first-episode psychoses. Method. Over an 18-month period, we examined 31 patients with first-episode psychoses admitted consecutively to the Roozbeh Hospital (a referral center in Tehran, Iran), whose illnesses could not be attributed to any medical or substance-induced conditions. Patients were assessed at entry to the hospital, at the time of discharge, and 12 months after admission. During each visit, two board-certified psychiatrists reached consensus DSM-IV and ICD-10 diagnoses based on all available information. All patients received medications as needed. The stability of diagnoses was determined using the prospective consistency of discharge diagnoses at the 12-month follow-up. Results. Five patients did not attend their follow-up sessions. Of the remaining 26, at the 12-month follow-up, diagnoses of schizophrenia and bipolar disorder were highly stable (with a prospective consistency of 100%). In addition, all patients with the DSM-IV diagnosis “brief psychotic disorder” and ICD-10 diagnosis “acute and transient psychotic disorders” remained the same at follow-up; conversely, schizophreniform disorder had the lowest stability (with a prospective consistency of 40%). Conclusion. Most rigorous diagnoses at first admission were quite stable at a one-year follow-up. The high stability of diagnostic entities for brief psychosis supports the validity of these entities, especially in developing countries.

Keywords: Psychotic disorders; First episode; Diagnostic stability.

Introduction

The validity of diagnoses based on criteria in either the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) of the American Psychiatric Association (APA, 1994) or the tenth edition of the WHO International Classification of Diseases (ICD-10) has yet to be fully established. Diagnostic stability is one of the five validating criteria suggested by Robins and Guze (1970) for verifying psychiatric syndromes. Diagnostic stability has been defined as the degree to which a diagnosis remains the same at subsequent assessments of the patient; the more stable the diagnosis, the more likely it is to reflect basic and consistent psychopathological or pathophysiological processes (Fennig et al., 1994).
Diagnostic changes over time may reflect the evolution of an illness, the emergence of new information, the unreliability of measurement, or the reinterpretation of previously-gathered information (Fennig et al., 1994; Schwartz et al., 2000). The problem is most obvious in patients with a first episode of a psychotic illness. Such patients may have unstable and fluctuating symptomatic changes, unclear mood symptoms, and concomitant substance abuse, which can distort the illness picture (Fennig et al., 1994). In clinical practice, this may, in turn, bring uncertainty into diagnoses; many of these patients may thus receive unspecified diagnoses that could develop into many others during follow-up assessments (Fennig et al., 1995).

Prospective follow-ups of patients with first-episode psychosis are the preferred method for studying the diagnostic stability of psychotic disorders (Fennig et al., 1994; Schwartz et al., 2000). This line of research provides a unique opportunity to improve existing diagnostic tools and criteria, as diagnostic accuracy can predict long-term prognosis. This would also aid in designing appropriate plans for the management of these patients.

There are a few studies that have explored the stability of DSM-IV and ICD-10 diagnoses prospectively in first-episode psychotic patients. These studies have reported relatively high degrees of stability for schizophrenia and affective psychoses when using the DSM-III-R, DSM-IV, and ICD-10 (Amin et al., 1999; Fennig et al., 1994; Lenz et al., 1991; Mason et al., 1997; Schwartz et al., 2000; Tsuang et al., 1981). However, the figures are lower for diagnostic categories such as DSM-IV’s schizophreniform disorder and brief psychotic disorder, as well as ICD-10’s acute and transient psychotic disorders (Amin et al., 1999; Sajith et al., 2002; Schwartz et al., 2000).

All these studies, with the exception of the Sajith et al.'s (2002) report from India, were conducted in Western countries. It is well-established that sociocultural factors significantly affect several aspects of psychopathology, as well as mental health-care, including symptom profiles, outcomes, methods of assessment, and diagnoses of psychotic disorders (Alarcon et al., 1999; Kulhara & Chakrabarti, 2001). In addition, in developing countries, psychoses with acute onsets are perhaps more common than in developed countries, comprising a larger proportion of psychotic disorders (Kulhara & Chakrabarti, 2001; Susser & Wanderling, 1994). Therefore, establishing the stability of psychotic illnesses, including acute psychoses, in non-Western countries would contribute to the cross-cultural validity of diagnoses.

In order to assess the stability of DSM-IV and ICD-10 diagnoses in Iran, a developing country, we conducted a 12-month follow-up study using a group of first-episode psychotic patients. In order to examine diagnostic stability, we determined the congruency between diagnoses at discharge and at the one-year follow-up.

Method

The subjects were admitted consecutively over an 18-month period (beginning in January, 1999) to the Roozbeh Hospital, a referral academic centre in Tehran, Iran. This hospital has no selective admission policy; it admits patients from diverse socioeconomic classes and from all over the country.

Inclusion criteria were as follows: (a) age 15 to 60 years; (b) presence of psychosis (based on the presence of delusions, hallucinations, disorganized speech, or grossly disorganized behaviors); and (c) no previous history of major psychiatric problems. Exclusion criteria included: (a) an onset of the episode more than three months before the initial assessment; (b) any suspicion that organic conditions or substances directly contributed to the emergence of symptoms; (c) use of any psychotropic medications within one week preceding the initial assessment; (d) mental retardation, as determined by clinical evidence; and (e) inability to communicate in Farsi (Farsi is the official language in Iran).

For screening purposes, admission charts and records of all consecutively-admitted patients were examined, and all patients with the first episode of any psychiatric disorder were interviewed to decide whether they met the criteria for entering the study. Thirty-one patients were invited to participate in the study, and written permission was obtained from all of them.

The initial assessment took place in the hospital, shortly before discharge. Afterwards, patients were followed up for one year at 3-, 6-, and 12-month intervals following admission to the hospital (usually in an outpatient setting). During each visit, the same two board-certified research psychiatrists independently made diagnoses based on all available information at those times, including interviews with patients and one significant other (usually a family member), as well as data from medical records. For making a diagnosis, both psychiatrists used checklists of ICD-10 and DSM-IV criteria in order to substantiate diagnostic decisions. In the case of incongruity between psychiatrists’ diagnoses, meetings were held to resolve disagreements. If a consensus could not be reached, the opinion of a third psychiatrist was solicited.

Of 31 patients, five were lost during the follow-up. The patients who dropped out of the study did not differ significantly from the other participants with respect to demographic characteristics.

In this study, medication information was neither obtained nor analyzed. However, it was known that all patients were treated with antipsychotics; some were also using antidepressants or mood stabilizers.
Twelve-Month Diagnostic Stability of First Episode Psychosis

A

Acute and Transient Acute and Transient Psychotic Disorders Psychotic Disorders
(n = 10) (n = 10)

Schizophrenia Schizophrenia
(n = 3) (n = 3)

Severe Depressive Severe Depressive Episode (with Episode (with psychotic symptoms) psychotic symptoms)
(n = 6) (n = 6)

Mania Mania
(n = 7) (n = 7)

B

Brief Psychotic Brief Psychotic Disorder (n = 7) Disorder (n = 7)

Schizophreniform Schizophreniform Disorder (n = 5) Disorder (n = 2)

Major Depressive Major Depressive Disorder (n = 6) Disorder (n = 5)

Bipolar I Bipolar I Disorder (n = 7) Disorder (n = 8)

Psychotic Disorder Psychotic Disorder NOS (n = 1) NOS (n = 1)

Figure 1. Diagnostic shifts of 26 patients with first-episode psychosis between the time of discharge and a 12-month follow-up in ICD-10 and DSM-IV classification systems (parts A and B of the figure, respectively). (Solid arrows indicate those patients remaining in the same diagnostic category; dashed arrows indicate those with changes in diagnosis.)
We assessed the stability of discharge diagnoses at the 12-month follow-up by analyzing Schwartz et al.’s (2000) measure of prospective consistency. This measure is equal to the proportion of individuals in a diagnostic category whose diagnosis did not change from their first admission to their 12-month follow-up. Prospective consistency would correspond to a positive predictive value if the 12-month diagnosis were considered the gold standard. In the present study, the reasons for changes in diagnoses were not explored.

**Results**

Of 26 patients at baseline who completed the follow-up, 16 were females, 17 were not married, and 14 had at least a high-school education. The mean age of participants was 22.1 years.

The most stable diagnoses were ICD-10’s “acute and transient psychotic disorders,” and schizophrenia, as well as DSM-IV’s “brief psychotic disorder,” and bipolar I disorder. Diagnoses of all these patients at baseline did not change at follow-up (i.e., prospective consistency equaled 100% for all these diagnoses). The lowest prospective consistency was obtained for DSM-IV’s schizotypal disorder (where it equaled 40%). Prospective consistencies of other diagnoses were intermediate: 83.3% for DSM-IV’s major-depressive disorder, and ICD-10’s “severe depressive episode with psychotic symptoms,” and 85.7% for ICD-10’s diagnosis of mania. Diagnostic shifts of DSM-IV and ICD-10 diagnostic categories during the course of follow-up are displayed in Figure 1.

**Discussion**

Most diagnoses at discharge were quite stable at the one-year follow-up when using either diagnostic system. The few observed changes in diagnoses could be explained as follows: three of five patients with schizophrenia who developed schizophrenia, were diagnosed as provisional at baseline, and were now regarded as patients with schizophrenia. The other changes included one patient with an episode of depressive disorder who developed mania at follow-up, and another one with mania who experienced a depressive episode. These instances could be explained by the expected course of these disorders.

High stability of schizophrenia and affective psychoses is not unexpected and is in keeping with previous studies (Amin et al., 1999; Fennig et al., 1994; Lenz et al., 1991; Mason et al., 1997; Schwartz et al., 2000; Tsuang et al., 1981). However, we found that brief psychoses were also highly stable. All patients in our study with acute and transient psychotic disorders (ICD-10) and brief psychotic disorder (DSM-IV) retained the same diagnosis at follow-up. Previous studies on the stability of brief psychoses in DSM and ICD classification systems yielded mixed results. Pillman et al. (2002) found that “acute and transient psychotic disorders” were a stable entity: only six of 38 patients in their patients had a diagnostic shift at follow-up visits, which occurred, on average, 2.2 years after the index episode. Another study by Sajith et al. (2002) revealed that nearly three-quarters of patients with a subtype of acute and transient psychotic disorders (namely, “acute polymorphic psychotic disorder without symptoms of schizophrenia”) did not experience any changes in their diagnosis after one year. On the other hand, in the study by Jorgensen et al. (1997), less than half of the patients with acute and transient psychotic disorders retained their diagnosis at the one-year follow-up. Amin et al. (1999) found very low three-year stability for ICD-10’s acute and transient psychotic disorders and DSM-III-R’s brief reactive psychosis diagnoses (37% and 8%, respectively). Schwartz et al. (2000) obtained similar findings: only 27% of patients with brief psychoses retained their diagnosis at a two-year follow-up.

Explaining the inconsistencies is rather difficult because of methodological differences between studies, such as the variable follow-up intervals, and the use of samples with a first versus recurrent episode of a brief psychosis. The other issue that merits consideration is the small sample size of subjects with these diagnoses in different studies (ranging from 11 to 46) that may increase the variability of the findings.

As we have not explored the reason for diagnostic shifts, it is not possible to fully explain our finding of high stability for brief psychoses. However, one probable reason could be that all these patients had developed an acute psychosis, since all subjects with a baseline DSM-IV diagnosis of brief psychotic disorder were diagnosed with acute and transient psychotic disorders using the ICD-10. Susser et al. (1995) have argued that brief psychoses with acute onsets have high temporal stability, especially in developing countries, where these psychoses have excellent long-term prognoses with a very low rate of relapse (Susser et al., 1998). In developing countries, acute brief psychoses are far more common than in industrialized countries (Kulhara & Chakrabarti, 2001; Susser & Wanderling, 1994). The same is true in the present study, where almost one-third of subjects had brief non-affective psychoses with acute onsets.

Additionally, high consistencies in diagnoses of brief psychoses—and in other diagnoses—could be due to our assessment procedure. In the present study, the 12-month diagnoses were based on longitudinal data using the same information as available at baseline, and the same two psychiatrists assessed patients at baseline and at follow-up. Therefore, the observed consistency is probably higher than it would be if the follow-up diag-
nososes were made in settings that differed from those of baseline diagnoses. However, we must note that this practice minimizes the error introduced by low inter-rater reliabilities.

The current study has several strengths strength, such as the application of longitudinal assessments of diagnoses that mimic actual clinical practice, and the use of cohorts of first-episode psychotic patients. However, there were also some limitations. Our sample size was small, and the interval between baseline and the follow-up session was small. To address these shortcomings, we are presently continuing this project, and are including a greater number of patients, as well as an extended follow-up period. The other limitation is that we did not examine the impact of treatments on the course of illnesses; this important issue should be considered in future studies. Because of these limitations, our conclusions are tentative.

In the present study, we found very high stabilities for most diagnoses in patients with a first episode of psychosis. The high stability observed in acute brief psychoses is an interesting finding, which supports the validity of these types of psychotic illnesses (including ICD-10's category of acute and transient psychotic disorders), especially in developing countries. More studies are needed to examine the long-term course and diagnostic stability of acute psychoses in cohorts of first-episode samples.

References


