Diagnostic Stability of Psychiatric Disorders in Baqiyatallah Hospital from 1997 to 2015

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Abstract

Background: Hospitalization compared to outpatient care leads to better diagnosis. Stability of diagnosis varies among different psychiatric disorders and is associated with some demographic and mental health variables.
Objective: The current study evaluated the stability of diagnosis in Baqiyatallah Hospital Psychiatric Ward.
Methods: In this retrospective study, 908 inpatient records from the psychiatric ward of Baqiyatallah Hospital in the years 1997-2015 were randomly selected. Having primary and final diagnoses was the inclusion criterion. Demographic variables (age, sex, marital status, education, and employment) and mental health variables (primary and final psychiatric diagnoses, duration of hospitalization, psychiatric history, and medication history) were recorded. Ultimately, 429 cases were entered into the study.
Results: The overall diagnostic stability rate was 57.6%. In mood, anxiety, psychotic, and personality disorders, the diagnostic stability rates were 84%, 63.8%, 46.3%, and 36.4%, respectively. For depressive and bipolar disorders, the stability of diagnosis rates were 85.5% and 86%, respectively. A significant relation between diagnosis axis, number of diagnoses, drug abuse and somatic disease history and diagnostic stability was seen (p<0.05).
Conclusion: According to the present study, the maximum diagnostic stability rate was related to mood disorders with anxiety disorders ranking second. The minimum stability was related to personality disorders. Other studies have reported completely different results which may be due to different situations. Future studies in this field seem to be essential.

Keywords: Diagnosis, Psychiatry, Hospitals

1. Background

Oversight or error in diagnosis leads to insufficient intervention and treatment in many patients, and this delays disease improvement [1]. Diagnosis error and changes in diagnosis were attributed to diversity of psychiatric symptoms, disorder similarity, the different course of each disease, and comorbid disorders. In many instances, a diagnosis is not possible until extensive medical and psychological evaluation has taken place [2]; therefore, it is essential that psychiatrists use diagnostic sources other than symptoms [3].

In some cases, patients are hospitalized in a psychiatric ward not only for treatment, but also for diagnosis. Inpatient admission may be valuable in clarifying diagnoses. Improvement in diagnosis after hospitalization is attributed to the accurate observation of the patient, the use of diagnostic tests and imaging (because of access to a laboratory and radiology), and more neuro-psychological examinations [4]. Therefore, it can be claimed that hospitalization may lead to a better psychiatric diagnosis. Over one-third of ICD-10 F20 schizophrenia cases at three years had non-schizophrenia diagnoses at onset [5]. Patients with manic symptomatology at the beginning had a very unstable and changeable course [6]. A survey of patients admitted four or more times to the same acute care psychiatric hospital over a period of 3 years revealed that only 34% of such patients were discharged with the same diagnosis on each admission [7]. In another study, the diagnosis index of nearly half of patients changed over a 4-year period [8]. It was found that the percentage of patients with changed diagnoses is highest at first readmission; at each later readmission, the diagnosis of manic-depressive psychosis changed in about 10% of bipolar and 25% of unipolar cases, and a similar number of diagnoses was changed from other diagnoses to manic-depressive psychosis [9]. During a two-year observation period, half of patients were readmitted, and the stability of diagnosis rate was 60% [10].

In approximately 56% of patients, the initial diagnosis of depressive disorder eventually changed during follow-up mainly to disorders in the schizophrenia spectrum (16%), but also to personality disorders (9%), neurotic, stress-related, and somatoform disorders (8%), and bipolar disorder (8%). Among the 18% of patients who were later diagnosed with depressive disorder, 23% were initially diagnosed with adjustment disorder [11], and 46.4% of hospitalized patients had at least one previous hospitalization with a psychiatric diagnosis other than bipolar disorder [12]. A large proportion of inpatients had their diagnoses altered, especially during hospitalization [13].

2. Objective

This study evaluated the diagnostic stability of psychiatric disorders at Baqiyatallah Hospital.

3. Methods

In this retrospective study, 908 psychiatry ward inpatient records from Baqiyatallah hospital were randomly selected from all records throughout the years 1996-2015. Having primary and final diagnoses was the inclusion criterion. Demographic variables (age, sex, marital status, education, employment), mental health variables (primary and final psychiatric diagnoses, duration of hospitalization, psychiatric history, and medication history) were recorded. Ultimately, 429 cases were entered into the study.

Stability of diagnosis was studied in cases including those with unchanged diagnoses from admission to discharge. The groups diagnosed were mood disorders, anxiety disorders, psychotic disorders, and personality disorders. The axis I diagnosis was divided into mood disorders, anxiety disorders, psychotic disorders, and other disorders. Personality disorders were all considered to be axis II diagnoses. The psychiatric diagnoses and diagnostic axis were recorded separately.

Data input and statistical analysis were accomplished using SPSS software. To describe the qualitative variables, frequency and relative frequency tables were used; to describe quantitative variables, mean, median, standard deviation, etc. were used.

Descriptive Statistics (frequency, percentage) and diagnostic analysis, which is a kind of regression analysis, were used to analyze data (P<0.05).

4. Results

In this study, the overall stability of diagnosis rate in hospitalized patients was 57.6% (Table 1). Diagnoses in order of stability were: mood disorders (84%), anxiety disorders (63.8%), psychotic disorders (46.3%), and personality disorders (36.4%).

Diagnostic stability rates were 37 (86%) and 213 (85.5%) for bipolar disorder and depressive disorder, respectively (Table 2).

The stability of diagnosis showed no significant relation with marital status, education, being a soldier or official employee, suicidality, smoking, malingering, economical problems, electro-convulsion therapy (ECT) (p>0.05) (Table 3).

Table 1. Descriptive statistics for early diagnoses of mood, anxiety, psychotic, and secondary character recognition

Secondary Diagnosis	Frequency (%)
Mood disorders (n=312)	
Mood disorders	262 (84)
Anxiety disorders	39 (12.5)
Personality disorders	30 (9.6)
Psychotic disorders	23 (7.4)
Anxiety disorders (n=58)	
Anxiety disorders	37 (63.8)
Mood disorders	39 (66.1)
Personality disorders	2 (3.4)
Psychotic disorders	4 (6.9)
Psychotic disorders (n=108)	
Psychotic disorders	50 (46.3)
Mood disorders	58 (52.3)
Anxiety disorders	3 (2.8)
Personality disorders	10 (9.3)
Personality disorders (n=12)	
Personality disorders	4 (36.4)
Mood disorders	6 (50)
Anxiety disorders	1 (9.1)
Psychotic disorders	1 (9.1)

Table 2. Descriptive statistics for stability of diagnosis in bipolar and depression secondary diagnoses

Secondary Diagnosis	Frequency (%)
Bipolar (n=43)	
Bipolar disorder	37 (86)
Depression	3 (7)
Anxiety disorders	1 (2.3)
Psychotic disorders	8 (18.6)
Personality disorders	0 (0)
Depression (n=249)	
Depression	213 (85.5)
Bipolar disorder	9 (15.3)
Anxiety disorders	38 (15.3)
Psychotic disorders	15 (6)
Personality disorders	29 (11.6)

Table 3. Diagnostic stability relationship and variables

Variable	Diagnostic Stability	Diagnostic Instability	Sig.
Age	29.90 ± 9.86	26.05 ± 8.51	0.000
Marital status	131 (53)	24 (50)	0.090
Education level	47 (20)	24 (14)	0.140
Soldier box	95 (38.5)	84 (46.2)	0.310
Length of stay	11.97 ± 8.05	10.15 ± 7.41	0.001
History of physical illness	48 (21.1)	51 (31.1)	0.016
Axis I diagnosis	244 (85.4)	141 (77.5)	0.000
Number of psychiatric diagnoses equal to 1	211 (85.4)	101 (55.5)	0.082
Drug use	28 (12.7)	34 (20.7)	0.025
Suicidality	2 (0.8)	1 (0.5)	0.071
Simulation	2 (0.8)	0 (0)	0.602
Smoking	119 (53.8)	83 (50.3)	0.109
Economic problems	111 (50.5)	90 (56.3)	0.082
Undergoing ECT	70 (28.3)	44 (24.2)	0.430

Data in table are presented as Mean SD or No. (%).

5. Discussion

In this study, the diagnostic stability (DS) for mood disorders was 84%. In another study, the DS for mood disorders was 68% [14]. The DS for mood disorders 5 years after the primary diagnosis was 40% [15], and the 30-40 year follow-up of mood disorders showed DS to be 78.3% [6]. In another report, the DS for mood disorders was 67%. 28.9% of subjects with an initial diagnosis of BPD had their diagnoses changed, whereas 16.1% of subjects with non BPD diagnoses had their diagnoses changed to BPD at a later episode [16].

The DS for anxiety disorders in this study was 63.8%. Results of another study showed that anxiety disorders had the greatest DS [17]. In yet another study, anxiety disorders had the lowest diagnostic stability rate [18].

The current study determined the DS for psychotic disorders to be 46.3%. Two other studies determined the DS of schizophrenia to be 74% and 67% [19]. In another study, patients with an initial episode of schizophrenic psychosis showed the greatest DS (93%) [4]. Psychotic disorder was the most stable. Among schizophrenic patients, higher stability rates appeared for residual and disorganized types [20].

In the current study, disturbed personality showed 36.4% DS. Two other studies, however, reported a 36% and a 73% DS for disturbed personality [14]. 12.5% of evaluated patients with borderline personalities had the same diagnosis at their first consultation as 5 years afterwards [21]. Dysthymic disorder was more frequently changed to major depressive episode than any other disorder [22]. The 6-12 month follow-up of schizotypal, borderline, avoidant, and obsessive-compulsive patients and the group of major depressive disorder patients (as control group) showed that more subjects in each personality disorder group remained at a diagnostic threshold throughout the 12-month follow-up

period than did those in the major depressive disorder group, although the number of criteria present decreased over time in all groups [23]. Another study tracked the individual criteria of DSM-IV personality disorders - borderline, schizotypal, avoidant, and obsessive-compulsive personality disorders - and how they changed over 2 years. This study showed that the most prevalent and least changeable criteria over 2 years were paranoid ideation and unusual experiences for schizotypal personality disorder, affective instability and anger for borderline personality disorder, feeling inadequate and feeling socially inept for avoidant personality disorder, and rigidity and problems delegating for obsessive-compulsive personality disorder. The least prevalent and most changeable criteria were odd behavior and constricted affect for schizotypal personality disorder, self-injury and behaviors defending against abandonment for borderline personality disorder, avoiding jobs that are interpersonal and avoiding potentially embarrassing situations for avoidant personality disorder, and miserly behaviors and strict moral behaviors for obsessive-compulsive personality disorder [24].

5.1. Classification of Different Psychological Disorders Based on Diagnostic Stability

In the current study, mood disorders and personality disorders had the most and least diagnostic stability, respectively. Anxiety disorders and psychotic disorders were between these ranges of stability. Different studies in this field have shown different results. In one study, high levels of stability were found for schizophrenia, moderate levels for affective disorders, low levels for other non-organic psychotic conditions and atypical psychosis, and very low levels for schizoaffective disorder and other conditions [25]. In another study, the highest diagnostic stability was found in patients with a diagnosis index of alcohol abuse, schizophrenia, and drug abuse, while the lowest stability was found in patients with neurotic, hysterical, and depressive disorders, acute psychoses, and bipolar disorders [26]. The most temporally consistent 6-month categories were schizophrenia, bipolar disorder, and major depression; the least stable were psychosis not otherwise specified, schizoaffective disorder, and brief psychosis [27]. In one study, schizophrenia and mania were the most stable diagnoses and organic disorders had the most variable diagnoses [28]. In another study, mobility was most marked for the neurosis group and was approximately uniform for other groups [29].

In the current study, a significant relation was identified between stability of diagnosis and diagnosis axis, number of diagnoses, drug abuse, and somatic disease history. Stability of diagnosis showed no significant relation with marital status, education, being a soldier or official employee, suicidality, smoking, malingering, economical problems, or electro-convulsion therapy. Age, gender, ethnicity, substance abuse, and disease severity had prominent roles in diagnostic changes; however, one study found no variables associated with diagnostic instability apart from the diagnoses themselves [30].

6. Conclusion

According to the present study, the highest diagnostic stability rates were found in affective disorders and anxiety disorders, respectively. The least diagnostic stability rate was found for personality disorders; in 50% of these patients, the

diagnosis was changed to affective disorder. The variables of substance abuse and organic disease history were related to the instability of diagnosis. Future prospective studies in this field will be of assistance.

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