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Diagnostic Stability of Acute and Transient Psychotic Disorder: A Long-term Outcome Study

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Abstract

Background: Diagnostic stability of Acute and Transient Psychotic Disorders (ATPD) has been depicted to be variable, with Indian studies showing range of 63.2–73.3%.

Aim: To see the diagnostic stability of patients with ATPD over a period of 9–13 years while constantly assessing other socio-demographic and clinical parameters.

Methodology: A retrospective cohort study was conducted at Department of Psychiatry of a tertiary care teaching hospital in northern India in October-November 2021. All patients with an initial diagnosis of ATPD of either gender, above 18 years of age who presented from January 2008 to December 2012, were enlisted. An 8 items questionnaire equipped to collect necessary details was used to explore various aspects of the illness, including present status.

Results: A total of 98 patients were enrolled, out of which the majority belonged to Chandigarh, were females and of the age group of 21–30 years. Psychotic symptoms were more prominent than affective symptoms. The diagnosis was revised in around 2/3rd of the patient population, yielding diagnostic stability as 33.7%. In a 9–13 year follow-up period, most patients were maintaining well; either in remission or had minimum symptoms. Less than half of the patients were still on medications. There was signficant correlation between income groups and psychotic and affective symptoms.

Conclusion: The diagnostic stability of ATPD over a period of 9–13 years of initial diagnosis is 33.7% and most common revised diagnoses were bipolar affective disorder and schizophrenia.

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Introduction

Acute and Transient Psychotic Disorders (ATPD), an entity that made its first appearance in ICD-10, has its prevalence rate varying from 3.9 to 9.6 per 100,000 population,[1] in which Other Acute and Transient Psychotic Disorders (ICD-10: F23.8) was the most common (69.3%) subtype of ATPD.[2] Owing to similarities in several aspects, while some even referred to ATPD as 'mini-schizophrenia', others have suggested that there lie more differences than similarities between the two.[1]

Diagnostic stability of ATPD has been in question time and again. Several prospective observational and retrospective cohort studies evaluated over variable

periods of time (ranging from 2 years to 20 years) in different developed and developing countries across the globe yielded varying percentages depicting the diagnostic stability of ATPD. Results obtained were concluded as being anywhere between 33–100%.[1,3-9] According to ICD-10, the stability percentage of ATPD was further narrowed down to 63–100%.[10]

Studies assessing diagnostic change have showed the varied cumulative risk for schizophrenia-spectrum disorder and bipolar spectrum disorder among ATPD patients,[5,7,11-13] with results showing relatively stable shift in developing countries.[10] Among factors assumed to have a role to play are female gender, older age at onset, good premorbid adjustment, abrupt onset, shifting polymorphic symptomatology and absence of schizophrenic features found to be predictive factors of diagnostic stability in ATPD.[11] The diagnostic shift is more evident in those with younger age of onset, more first-degree relatives with a history of mental illness, and more subsequent psychiatric admissions.[12] Lesser illness duration and stressful events predicted 1-year favorable clinical outcome for acute psychoses.[14]

In an 8 year follow-up study on 3074 participants with ATPD concluded that risk of development of schizophrenia was around 36%.[5] In a 20-year-old retrospective study on 87 participants with initial diagnosis of ATPD, the diagnosis was revised to bipolar disorder or schizophrenia in 64.4% of participants.[12]

Indian studies conducted over motley periods of time found the diagnostic stability to be in the range of 63.2-73.3% in contrast to a greater percentage of diagnostic instability in developed countries, but the shift in diagnosis to either BPAD or schizophrenia was comparable with that observed in developed countries.[15-17]

The relevance of diagnostic stability is that it is a measure of predictive validity for psychiatric syndromes. It is an under-studied area in functional psychosis despite its clinical and research implications. There are very few studies to emphatically state its actual diagnostic stability. The studies previously reviewed had differences in design (prospective *vs*. retrospective study designs) and length of follow-ups, making any comparison seem unjustifiable and forced.

This study aims to enhance our knowledge, more so in the deficit domains, by observing all enrolled patients with ATPD as baseline diagnosis over an optimal period while constantly assessing other socio-demographic parameters, clinical presentation and pharmacological interventions. Greater focus has been laid on the trajectory of this entity and possible implicated factors.

Methodology

Setting

The study was conducted at Department of Psychiatry of a tertiary care teaching hospital in Northern India.

Study Design

It was a retrospective cohort study.

Procedure

The Department of Psychiatry runs daily Walk-In-Clinic (WIC) for patients visiting the psychiatry OPD. As a standard protocol, patients visiting the psychiatry OPD for the first time are seen in WIC by Senior Resident. All socio-demographic and clinical information are noted on a predesigned semi-structured proforma and diagnosis is arrived at according to ICD-10 criteria.[18]Detailed work up date is allotted to the patients which are then discussed with the Consultant Psychiatrist for final diagnosis and further management. Diagnoses and treatment are revised, if necessary.

The case record files of all new patients who visited the psychiatry department from January 2008 to December 2012 were screened. All patients with an initial diagnosis of Acute Transient Psychotic Disorder (ATPD) of either gender with age above 18 years were enlisted. The files of these patients were retrieved and socio-demographic (viz gender, age, occupation, education, income, contact details), and relevant clinical information (viz confirmed diagnosis of ATPD, medications prescribed and other treatment-related information) was obtained from the files. The files were thoroughly screened for any clinical information pertaining to organicity, substance-induced psychiatric illness or any other alternate diagnosis for the purpose of exclusion from study.

Only the patients who dropped out from follow-up were contacted telephonically to obtain consent for participation in the study. Files with incomplete baseline socio-demographic and clinical details were excluded and patients who refused telephonic consent or did not pick up phone on consecutive 2 occasions were not included in the study.

Information regarding current ongoing psychiatric treatment and health status was obtained from case record files. As follow-up notes contain clinical status of the patients, prescription of medicines and information pertaining to compliance to medications, the terminologies used implied as follows:

- 'maintaining well' meant that there was no increase in dose of psychotropic since last visit and no new symptom(s) had appeared;
- 'improved but symptomatic' meant that there was a substantial reduction in the severity of illness but the patient was still symptomatic and
- 'improved' meant that there was no active psychopathology and the patient is under remission and functional.

For the purpose of 'compliance to treatment':

- If the patient was taking medications regularly, then it was specified as 'compliance +' and
- if not taking medications regularly then as 'irregular compliance'.

If the patient was not taking medications since last visit, the patient was assumed to be 'non-compliant'.

The understanding regarding these terminologies remains uniform among members of the treating team. The follow-up notes contain information regarding revision of the diagnosis, if any. To compile information, an 8 items questionnaire was drafted to explore various aspects of the illness.

The questionnaire had the following items:

- What were the prominent symptoms at the time of the illness?
- Was any stressor present before the onset of illness?
- What were the medications prescribed
- What was the duration of the illness?
- Was the diagnosis revised at any point of the illness?
- What is the final diagnosis?
- Is patient still taking medications?
- What is the current psychiatric status of the patient?

Information was gathered from case record files of the patients based on 8 items questionnaire for patients who were coming for follow-ups. The same information was asked telephonically from patients who were not active to follow-up. If a patient is not aware of the revised diagnosis and medications, the last information specified in the case record file was considered.

Study was carried out in October-November 2021. Institutional Ethics Committee approved the study.

Statistical Analysis

All analyses were conducted using SPSS for Windows (version 24.0; SPSS Inc., Chicago, IL, USA).[19] Discrete categorical data are presented as n (%). P value was kept significant at <0.05.

Results

Data of 98 patients was included in the study, and the progression of illness was studied over 9-13 years. 42.9% of the patients belonged to Chandigarh, with 55.1% of the patients hailing from an urban background. Mean age of the participants was 30.35 years with a standard deviation (SD) of $\pm$11.32. Majority of the patients in the age group of 21-30 years (34.7%). Only 1% of our study population was above 60 years of age.

Of the total population, 52% were females and 48% were males. Most of the population that presented with a baseline diagnosis of ATPD i.e., 29.6% were educated up to high school and least was observed among post-graduates (2.0%).

Most of those presenting with ATPD were housewives (31.6%), followed by students (19.4%). Least percentage observation of ATPD was among those with agricultural occupation (1%). 54.1% of the patients were married, with an average income of INR 3500-7000 among 50.0% of patients. 55.1% patients belonged to nuclear families**.**

There was no family history of psychiatric illness in 87.8% of the patients.

The study results denoted an early healthcare-seeking pattern (within 5 days of onset of symptoms) among 39.6% of the patients, which could be

attributed to severity of presenting symptoms or perhaps reflect awareness regarding mental health problems. All in all, 92.8% of patients presented within 20 days of onset of illness.

A definite precipitating factor could not be elicited in 65.3% of the patients. 15.1% patients had family issues as precipitating factor of their illness, 5% had an active stressor and in 2% patients, the illness occurred in the postpartum period**.**

Among the presenting symptomatology, psychotic symptoms were more prominent than affective symptoms i.e., 79.6% presented with psychotic symptoms (78 patients) and 20.4% (20 patients) with affective symptoms.

All the patients received psychotropics at first visit, of which 81.6% of patients received antipsychotics alone for treatment, 14.4% of patients received antipsychotics with a combination of mood stabilizer/SSRI/TCA. 1% of patients were on mood stabilizers as the sole pharmacological management and 1% received mood stabilizers along with an SSRI. Benzodiazepines were the sole treatment of 2% of the population. Records showed that patients who received combination or monotherapy as mood stabilizer or mood stabilizer with an SSRI were already on these medications before reporting to our set up and were continued on same by the psychiatrist. Very small number of patients (2%) presented with improving symptomatology and hence received benzodiazepines only.

The retrospective analysis over past 9-13 years was done to determine the diagnostic stability of ATPD. The diagnosis was revised in 66.3% of the patient population, yielding diagnostic stability as 33.7%. Almost 1/3rd of patients (32.6%) had their diagnosis revised to bipolar affective disorder and 15.3% to schizophrenia. Among other diagnoses kept after revision, distribution is shown in Table 1.

Post the above mentioned follow up period, 39.8% patients were still on medications. 82.7% of the patients were maintaining well; either in remission (80.6%) or had minimum symptoms.

While psychotic and affective symptoms were observed in all age groups, psychotic symptoms were the sole presentation in all patients who were >50 years of age at first visit, and affective symptoms were a predominant finding in those ≤20 years of age. This information was however found to be statistically insignificant (chi-square: 3.328, p-value: 0.505). Affective symptoms were found to be more in males when compared to females (23.4 vs 17.6%) and reverse was true for psychotic symptoms (82.4 vs 76.6%) (chi-square: 0.499, *p-value*: 0.480, statistically insignificant) (Figure 1).

Analysis of socio demographic details revealed presentation of predominantly psychotic symptoms among those who were educated up to primary school (100%), were either self-employed or unskilled (both 100%), were either widowed or separated (100%), belonging to nuclear family (79.6%), or had a rural background (86.4%), with residence either Bihar or Uttarakhand. Affective symptoms on the other hand were a predominant manifestation among those educated up to senior secondary (35.7%), those with an agricultural occupation (100%), those who were single (24.4%), those belonging to joint family (20.5%), and with an urban background (25.9%), with the residence of Himachal Pradesh (50%). However, this data was found to be statistically insignificant.

Psychotic symptoms were seen to be the sole presentation in those with income more than INR 10,000/month (100%) and affective symptoms

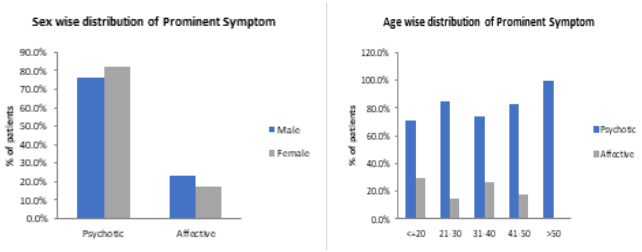

Figure 1: Age and sex wise distribution of symptomatology.

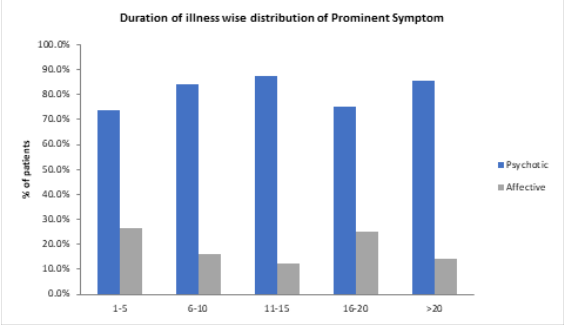

Figure 2: Duration of illness and baseline symptomatology.

Table 1: Diagnostic breakup of cases

Initial Diagnosis of ATPD N (%)	*Initial diagnosis retained N (%)*	*Diagnosis revised N (%)*	*Revised Diagnosis*	*Frequency (N)*	*Percent (%)*
98 (100%)	33 (33.7)	65 (66.3)	Affective disorders	32	32.60%
			Schizophrenia	15	15.30%
			Phobic anxiety disorders	4	4.20%
			Schizoaffective disorder	3	3.10%
			Recurrent ATPD	3	3.10%
			Substance use disorders	2	2.00%
			Other psychotic disorders	2	2.00%
			Mental and behavioural disorders associated with puerperium	1	1.00%
			Mental Retardation	1	1.00%
			Organic hallucinosis	1	1.00%
			Unspecified Dementia	1	1.00%
			Total	98	100%

Table 2: Association between various income groups and symptomatology

Income (INR)	*Psychotic symptoms frequency(Percentage)*	*Affective symptoms frequency (Percentage)*	*Total (100%)*	*chi square*	*p-value*
<3500	14 (82.4%)	3 (17.6%)	17		
3500-7000	41 (83.7%)	8 (16.3%)	49		
7001-10000	5 (35.7%)	9(64.3%)	14	21.369	0.001**
>10000	18 (100%)	0(0.0%)	18		
Total	77 (79.4%)	20 (20.6%)	98		

**Significiant.

were predominantly seen in those with income between INR 7000-10,000 per month (64.3%) (chi-square: 21.369, *p-value*: 0.001, statistically significant) (Table 2).

Duration of illness (in days) prior to hospital visit with presenting symptomatology was as follows (Figure 2). However, this result was statistically insignificant. (chi-square: 2.019, *p-value*:0.732).

During analysis of the data, it was found that diagnosis was revised in 100% of patients aged greater than 50, with the least diagnostic revision among those from 31-40 years of age (57.9%) (chi-square: 3.371, p-value: 0.498). The diagnosis was revised in 70.6% of females when compared to 66% of males (chi-square: 0.243, *p-value*: 0.622).

Considering the illness specifier (number of days of symptomatology before seeking medical help), diagnostic revision was observed maximally in those who had visited the hospital between 11-15 days of active symptoms and least among those presenting with symptoms 16-20 days after the onset of the same but the results were not statistically significant (chi-square: 9.046, *p-value*: 0.06.)

Discussion

Acute and Transient Psychotic Disorder (ATPD), an evolving entity with factors implicated are yet to be clearly understood, was the heart of this study. Results of the study that entailed careful analysis and understanding of the interplay of several socio-demographic, clinical and pharmacological factors with the diagnostic stability of ATPD and its trajectory over 9-13 years were found to be a blend of results of previously conducted studies.

Index study reported diagnostic stability of ATPD over a period of 9-13 years of initial diagnosis is 33.7%. Earlier studies on diagnostic stability of ATPD from

India with period of observation ranging between 13.2 months to 3 years , found to lie in the range of 63.2-73.3%,[15-17] little higher than index study but similar to international studies.[1,3-9] Lesser diagnostic stability in index study could be due to early presentation for treatment seeking, younger onset age and longer follow-up duration.

Index study shows a diagnostic change to 32.6% to bipolar affective disorder and 15.3% to schizophrenia over 9–13 years and findings are comparable with a previously conducted study showing diagnostic change over a year to schizophrenia (15%) and affective disorder (28%).[13] Bipolar affective disorder and schizophrenia were found to be the most stable diagnostic categories over 5 years with prospective consistency of 100 and 95.8% respectively in previous research,[7] and our study showed that diagnostic revision was most commonly to these two entities in accordance with previous research.[13] Our study, like previouly conducted studies in developing countries concluded that the shift in diagnosis to either BPAD or schizophrenia was in line with that observed in developed countries.[15-17]

Our study had prime focus on implication of socio-demographic factors like gender, sociocultural and educational background with ATPD. The study highlighted age of likely presentation to be in early adulthood which is in accordance with previous studies.[13] Considering educational qualification, the maximum diagnostic revision was done in graduates i.e., 81.8% and least in senior class passed patients i.e., 57.1% (chi-square: 2.988, p-value: 0.702).While considering other socio-demographic factors, findings were suggestive of maximum diagnostic revision among those with agricultural occupation (83.3%), married patients (69.8%), those with income INR 7001-10000/ month (85.7%) , those who belonged to a nuclear family (70.4%), and from urban background (72.2%) and least among private employees (41.7%) , those who were separated/ widows/widowers (50%), those with income < INR 3500/ month, those who belonged to joint family (65.9%) and from a rural background (63.6%). Though these predictors of diagnostic stability were found to be statistically insignificant, important findings emerged. These are unique findings of index study and we could not find any study to corroborate the association of above socio-demographic variables with diagnsotic revision in ATPD.

Maximal presentation of patients within 5 days of evolution of symptoms showed health care seeking patterns, which could be due to a multitude of factors (like severity of illness with manageability issues, or better understanding of illness with prompt seeking of medical health services for mental health issues) which is an important finding in a developing country like ours. With precipitating factors largely unidentified or varied in presentation even when identified, it might be safe to conclude that many factors can lead to the onset of or precipitate ATPD in vulnerable individuals, leaving scope for further research in this domain and remains relatively unexplored. Predominant presentation with psychotic symptoms influencing treatment decisions highlighted that despite lack of definite guidelines for the management of ATPD, use of antipsychotics forms the mainstay of treatment in tertiary care centres. This study, through a long term follow up showed an overall good outcome with optimal socio-occupational functioning in most of the patients, thus reflecting a good prognosis. In this study, although stressors weren't identified in the majority of the patients, the prognosis was good, which goes against previous research that emphasized that identification of the occurrence of a stressor was a requisite for good prognosis. [14] Presenting symptomology i.e. psychotic symptoms versus affective symptoms at the time of presentation might have a definite relation with the economic background of the patient, an unexplored factor that this study yielded.

The index study has the strengths of the long-term observation period to determine diagnostic stability (i.e. over a period of 9–13 years) of initial diagnosis of ATPD and also looked in the various baseline socio-demographic, clinical factors and prescription pattern in relation to current psychiatric status and outcome. However, it has few limitations as we did not look for subsequent/recurrent episodes or any relationship between revised diagnosis and continuation of treatment and final outcome. One limitation of this long-term follow-up study is that the details of patients lost to follow up could not be obtained, which could have provided us a better insight. Nev-

ertheless, this is among the few long-term studies from this part of India that still provides us with relevant and clinically useful information that can aid in the holistic and better management of this group of patients. The study also might open ways for future studies in predicting whether robust treatment will improve prognosis or revision of diagnosis.

Conclusion

The index study reported the diagnostic stability of ATPD over 9–13 years of observation as 33.7%. The major diagnostic shift is to schizophrenia and bipolar affective disorder. Older age of onset, female gender and later presentation to treatment setting affects the stability of diagnosis of ATPD.

Future Direction

There is a need to have a long-term prospective follow-up study with a larger sample size to assess the stability of the diagnosis of ATPD and its correlation with the baseline socio-demographic and clinical presentation and prescription pattern.

References

1. Farooq S. Is acute and transient psychotic disorder (ATPD) mini schizophrenia? The evidence from phenomenology and epidemiology. Psychiatr Danub 2012;24 Suppl 3:S311-5.
2. Kar SK, Dhanasekaran S. Outcome of acute and transient psychotic disorder in an index episode: A study from a tertiary care centre in North India. Asian J Psychiatr 2017;25:101-5.
3. Marneros A, Pillmann F, Haring A, Balzuweit S, Blöink R. Features of acute and transient psychotic disorders. Eur Arch Psychiatry Clin Neurosci 2003;253(4):167-74.
4. López-Díaz Á, Fernández-González JL, Lara I, Ruiz-Veguilla M. Predictors of diagnostic stability in acute and transient psychotic disorders: validation of previous findings and implications for ICD-11. Eur Arch Psychiatry Clin Neurosci 2020;270(3):291-9.
5. Rutigliano G, Merlino S, Minichino A, Patel R, Davies C, Oliver D et al. Long term outcomes of acute and transient psychotic disorders: The missed opportunity of preventive interventions. Eur Psychiatry 2018;52:126-33.
6. Rusaka M, Rancāns E. First-episode acute and transient psychotic disorder in Latvia: a 6-year follow-up study. Nord J Psychiatry 2014;68(1):24-9.
7. Chang WC, Pang SL, Chung DW, Chan SS. Five-year stability of ICD-10 diagnoses among Chinese patients presented with first-episode psychosis in Hong Kong. Schizophr Res 2009;115(2-3):351-7.
8. Castagnini A, Foldager L, Bertelsen A. Long-term stability of acute and transient psychotic disorders. Aust N Z J Psychiatry 2013;47(1):59-64.
9. Rusaka M, Rancāns E. A prospective follow-up study of first-episode acute transient psychotic disorder in Latvia. Ann Gen Psychiatry 2014; 6:13(1):4.
10. Mehta S. Diagnostic Stability of Acute and Transient Psychotic Disorders in Developing Country Settings: An Overview. Ment Illn 2015;23;7(1):5640.
11. Queirazza F, Semple DM, Lawrie SM. Transition to schizophrenia in acute and transient psychotic disorders. Br J Psychiatry 2014;204:299-305.
12. Poon JY, Leung CM. Outcome of first-episode acute and transient psychotic disorder in Hong Kong Chinese: a 20-year retrospective follow-up study. Nord J Psychiatry 2017;71(2):139-44.
13. Jørgensen P, Bennedsen B, Christensen J, Hyllested A. Acute and transient psychotic disorder: a 1-year follow-up study. Acta Psychiatr Scand 1997;96(2):150-4.
14. Castagnini AC, Munk-Jørgensen P, Bertelsen A. Short-term course and outcome of acute and transient psychotic disorders: Differences from other types of psychosis with acute onset. Int J Soc Psychiatry 2016;62(1):51-6.
15. Sajith SG, Chandrasekaran R, Sadanandan Unni KE, Sahai A. Acute polymorphic psychotic disorder: diagnostic stability over 3 years. Acta Psychiatr Scand 2002;105:104-9.
16. Thangadurai P, Gopalakrishnan R, Kurian S, Jacob KS. Diagnostic stability and status of acute and transient psychotic disorders. Br J Psychiatry 2006;188:293.
17. Narayanaswamy JC, Shanmugam VH, Raveendranathan D, Viswanath B, Muralidharan K. Short-term diagnostic stability of acute psychosis: data from a tertiary care psychiatric center in South India. Indian J Psychol Med 2012;34:176-8.
18. World Health Organization. The ICD-10 classification of mental and behavioural disorders: clinical descriptions and diagnostic guidelines. Geneva, 1992.
19. SPSS for Windows , version24.0; SPSS Inc., Chicago, IL, USA,2016.