Acute and transient psychotic disorders

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Acute and transient psychotic disorders, as defined by the ICD-10, are disorders which mainly concern females, with possible onset in all ages of adult life, but usually between the thirtieth and fiftieth year of life. Their onset is acute or even abrupt within 48 hours, but only rarely dependent on acute severe stress in spite of former assumptions. The psychiatric period is very short, with a mean of 17.5 days, in some cases even only one day. Their response to antipsychotic drugs is very good and their outcome is usually favorable in spite of the fact that they are usually recurrent. They differ from schizophrenia regarding the gender distribution, age at onset, premorbid level of functioning and social interactions. The level of postepisodic functioning and outcome is more favourable in ATPD than in schizophrenia.

Key words: *acute psychotic disorders, transient psychotic disorders, antipsychotics, gender, outcome.*

Introduction

The existence of acute psychoses of short duration, often having an intensive or even dramatic symptomatology, but also full remission, has always been well-known to clinicians and has been described by almost all

important authors of the pre-Kraepelinian period. After Emil Kraepelin's division of the so-called endogenous or functional psychoses into a group of dementia praecox (schizophrenia) and manic-depressive insanity (affective disorders) some of the above mentioned psychotic disorders were classified as schizophrenia and some others as belonging to the affective category.[1] But Emil Kraepelin also recognized that there is a "not small group of disorders" which cannot be allocated – neither to schizophrenia, nor to affective disorders. Even after the reformation of Kraepelin's dichotomic system by Eugen Bleuler[2] creating the "group of schizophrenias", the problem of the brief, acute, transient, and good prognosis psychoses has not been solved. Opposition, especially in Germany, France, Scandinavia, and Japan, to Emil Kraepelin's dichotomic system, as well as to Eugen Bleuler's conception of schizophrenia, led to the concepts of "cycloid disorders" in Germany, "bouffeė dėlirante" in France, "atypical psychoses" in Japan, "reactive or psychogenic psychoses" in Scandinavia.[1,3-6] Those concepts are not identical – in spite of some overlaps – with the concept of schizoaffective disorders. Obviously schizoaffective disorders and acute and transient psychotic disorders (ATDP) are psychopathologically, clinically and genetically different groups of disorders, only having some overlaps.[1,7-9]

The existence of brief good prognosis psychotic disorders world-wide has been confined by global epidemiological studies like the "International Pilot Study of Schizophrenia", the "Determinants of Outcome of Severe Mental Disorder Study", and the "Cross-Cultural Study of Acute Psychoses" initiated by the WHO, showing that such psychoses are much more common in developing countries than in industrialized states.[1]

Modern definitions

The modern diagnostic systems such as the International Classification of Diseases[10] and the Diagnostic and Statistical Manual[11] tried to homogenize the various regional and national concepts concerning the findings of the above mentioned global studies by creating the group of "Acute and Transient Psychotic Disorders" (ATPD, ICED-10) and "Brief Psychoses" (DSM-IV). The Brief Psychoses of DSM-IV are more narrowly defined than the Acute and Transient Psychotic Disorders in ICED-10. So, every "Brief Psychosis" could be diagnosed as "Acute and Transient Psychotic Disorder" but not vice versa.[12] The diagnostic criteria for the ICED-10 category F23 "Acute and Transient Psychotic Disorders" can be in table 1.

The group is distinguished into five subgroups:

- Acute Polymorphic Psychotic Disorder With and Without Symptoms of Schizophrenia,
- Acute Schizophrenia-like Psychotic Disorder,
- Other Acute Predominantly Delusional Psychotic Disorders,
- Other ATPD,
- Unspecified ATPD.

But the main and essential group is the group of "Acute Polymorphic Psychotic Disorder".

The above mentioned definition of ATPD by the WHO aims to take into account various more or less national concepts, definitions and nomenclatures; the most important of them are shown in table 2.

In spite of the new definitions and criteria there is only rare research on the topic and according to WHO the following can be said: *"The nomenclature of these acute disorders is an uncertain as their nosological status[..]. Systematic clinical information that would provide definitive*

guidance on the classification of acute psychotic disorders is not yet available, and the limited data and clinical tradition that must therefore be used instead do not give rise to concepts that can be clearly defined and separated from each other…"[10]

There exists some work in developing countries: Das et al.[13,14] study acute and transient psychotic disorders in India, as did Susser et al.,[15] Varma et al.,[16] and recently Sajith et al.[17] Reports of brief psychoses using various definitions come from Africa.[18,19]

In the industrialized countries today there are only few studies including that of Munk-Jørgensen et al.[20,21] who followed a cohort of ATPD patients for one year. Others gave case reports or studied organic features.[22,23]

Table 1. Diagnostic criteria for "Acute and Transient Psychotic Disorders" (F23) according ICED-10.

G1. There is acute onset of delusions, hallucinations, incomprehensible or incoherent speech, or any combination of these. The time interval between the first appearance of any psychotic symptoms and the presentation of the fully developed disorder should not exceed 2 weeks.

G2. If transient states of perplexity, misidentification, or impairment of attention and concentration are present, they do not fulfill the criteria for organically caused clouding of consciousness as specified for F05.-, criterion A.

G3. The disorder does not meet the symptomatic criteria for manic episode (F30.-), depressive episode (F32.-), or recurrent depressive disorder (F33.-).

G4. There is insufficient of recent psychoactive substance use to fulfil the criteria for intoxication (F1x.0), harmful use (F1x.1), dependence (F1x.2), or withdrawal states (F1x.3 and F1x.4). the continued moderate and largely unchanged use of alcohol or drugs in amounts or with the frequency to which the individual is accustomed does not necessarily rule out the use of F23; this must be decided by clinical judgment and requirements of the research project in question.

G5. Most commonly used exclusion clause. There must be no organic mental disorder (F00-F09) or serious metabolic disturbances affecting the central nervous system (this does not include childbirth).

(The duration of the disorder must not exceed 3 months in subtypes F23.0, F23.3 and F23.8; it most not exceed 1 month in the subtypes F23.1 and F23.2, which include schizophrenic symptoms.)

Table 2. Synonyms for ATPD.

- Acute (undifferentiated) schizophrenia
- Bouffée délirante
- Cycloid psychosis
- Oneirophrenia
- Paranoid reaction
- Psychogenic (paranoid) psychosis
- Reactive psychosis
- Schizophrenic reaction
- Schizophreniform attack or psychosis
- Remitting schizophrenia
- Good prognosis schizophrenia

The Halle Study on Brief and Acute Psychoses

The most consequent and voluminous study is the "Hale Study on Brief and Acute Psychoses" (HASBAP), carried out in Germany.[1,9,12,24-27]

The HASBAP combines three methodological approaches:

1. The prospective approach, studying a consecutively recruited inpatient sample with a diagnosis of "Acute and Transient Psychotic Disorder" or "Brief Psychotic Disorder".

2. A case control design in which every patient of the original index cohort is matched for age and gender with two clinical and a non-clinical control group.
3. The longitudinal approach for all three clinical groups.

The control groups comprised (a) patients with an acute episode of "positive" schizophrenia, (b) patients with an acute episode of bipolar schizoaffective disorder, and (c) surgical patients without any mental disorder.

The group of "positive schizophrenia" was chosen because of the comparability of the groups: all patients with ATPD have by definition productive psychotic symptoms, so the control groups of schizophrenic patients have to show also positive psychotic symptoms. The group of bipolar schizoaffective disorders was chosen due to the fact that bipolarity of mood is also essential in some concepts of ATPD.[1]

In the HASBAP, a cohort of 42 patients with ATPD was Followed-up for a mean of 4.7 years after the index episode or 10.6 years after the first episode. Follow-up investigations were also performed for the control groups. Instruments used included a semistructured sociobiographical interview, the Schedules for Clinical Assessment in Neuropsychiatry (SCAN),[28] the Global Assessment Scale (GAS),[29] the German version of the WHO Disability Assessment Schedule[30] and the Positive and Negative Syndrome Scale (PANSS).[31]

Clinical and paraclinical features of ATPD

Frequency of ATPD

The HASBAP show that the proportion of Acute and Transient Psychotic Disorders in all non-organic psychoses and all non-organic major affective disorders (ICED-10 F2, F3) is approximately 4% (Figure 1).

If we consider only the non-organic psychotic disorders (excluding the non-organic major affective disorders), then the proportion of ATPD is 8.5%. As already mentioned, the frequency of ATPD is found to be higher in countries of the third world.[32]

Sociobiographic features

The great majority of patients with ATPD in the present sample are female (78.6% versus 21.4$ male). In this, the group of ATPD differs significantly from schizophrenia. It is more similar, however, to unipolar affective and schizoaffective disorders (Figure 2).

ATPD can occur at every age, but most frequently between the 30th and 45th year of life (Table 3).

Table 3. Description of the samples: relevant clinical and sociobiographical data.

Acute and transient psychoses (ATPD) n = 42	**Positive schizophrenia (PS) n = 42**	**Bipolar Schizoaffective Disorder(BSAD) n = 42**	**Statistical analysis**
n (%)	*n (%)*	*n (%)*	

Onset of index episode				
abrupt (within 48 hours)	**18 (42.9)**	**5 (11.9)**	**4 (9.5)**	**ATPD>PS,**** **ATPD>BSAD**[1]**
acute (within 14 days)	**24 (57.1)**	**15 (35.7)**	**19(45.2)**	**ATPD>PS,*[1]**
subacute (more than 14 days)	**0**	**22 (52.4)**	**19 (45.2)**	**ATPD<PS**** **ATPD<BSAD***
Acute stress				
Within 14 days of onset	**4 (9.5)**	**0**	**0**	**n.s.**
	Mean±S.D.	Mean±S.D.	Mean±S.D.	
				p = 0.011[2]
Age at onset in years	**35.8±11.1**	**35.3±13.9**	**28.6±10.8**	**ATPD>BSAD,*** **PS>BSAD***
Duration of psychotic period in days	**17.5 (13.3)**	**103.0 (71.7)**	**73.4 (60.1)**	**p <0.001[2]** **ATPD<PS,***** **ATPD<BSAD***** **BSAD<PS***

[1] Chi-square test or Fisher's exact test: only pairwise comparisons with significant differences are indicated. *p<0.05, **p<0.01, ***p<0.001, n.s. not significant

[2] ANOVA: pairwise comparisons with significant differences (Scheffe procedure) are indicated.

Mode of onset

The assumption of the WHO, that associated acute stress plays a major role for the onset of an episode of ATPD, could not be confirmed by our data as shown in table 3. In this context the discrimination of a group "with" and

"without" acute associated stress appears to make little sense. All episodes had an acute onset – i.e. within 14 days. For a substantial number of patients the onset was even abrupt, i.e. within 48 hours
(Table 3).

The duration of psychotic episode is short which complies with the concept of the WHO. Half of the patients had a psychotic period of less than 13 days. In addition, episodes of just one day duration were observed.

Psychopathology of the acute episode

During the index episode, all patients by definition showed psychotic symptoms (e.g. delusions or hallucinations) (Table 4). Surprisingly, the schizophrenic first-rank symptoms were found in more than 70% of patients with ATPD, i.e. though insertion, thought broadcasting, delusions of being influenced, etc. A further characteristic of the group is that disturbances of affectivity were also found in all patients, with depressed mood, euphoria and anxiety, all being present in most of the patients at some point in time. None of the patients, however, showed the full picture of a depressive or manic episode. Another feature typically associated with ATPD is a "polymorphic" picture: rapidly changing mood, rapidly changing symptoms and bipolarity of symptoms. As table 4 shows, not only does quickly changing mood seem to be characteristic of an ATPD episode, but also quickly changing topics of delusions, which are very unstable. Bipolarity (i.e. change between hyperthymic and depressed mood), was found in 29% of patients within the same episode, often even within one day. This rapid changing of affect –

especially in the polymorphic group – shows the similarity of some such states with the cycloid psychoses or the bouffée délirante.[1]

As table 3 shows, the development of the full symptomatology is very quick. The time between the first manifestation of the psychotic symptoms to the full-blown symptomatology is approximately 3 days. The ICD-10 definition of ATPD explicitly allows for non-psychotic prodromal symptoms of more than 2 weeks duration. In the present sample, such non-psychotic prodromal symptoms were present in some patients, with a median of 3 days. The duration of the psychotic period was very short. In 3 patients, we found a duration of only one day; the median duration was 13 days. It must be stated, however, that nearly all patients received antipsychotic medication. The mean duration of inpatient treatment was approximately one month, but was usually shorter. Some patients had to stay longer in hospital because of social factors estimated to be a risk for relapse.

Table 4. Symptomatology of ATPD of the index episode (n=42)

	n	**(%)**
Productive psychotic symptoms (hallucinations and delusions)	42	(100.0)
Hallucinations	32	(76.2)
Delusions	41	(97.6)
Delusions of being influenced	21	(50.0)
First –rank symptoms	30	(71.4)
Rapidly changing delusions	20	(47.6)
Affective disturbance	42	(100.0)

Disturbance of drive and psychomotor disturbances	36	(85.7)
Depressed mood	31	(73.8)
Maniform symptoms	32	(76.2)
Anxiety	32	(76.2)
Rapidly changing mood	29	(69.0)
Thought disorder	36	(85.7)
Bipolar character of symptoms	12	(28.6)

Therapy in the acute episode

All patients (with the exception of two) were successfully treated with antipsychotics (Table 5), both typical and atypical. In two thirds of patients monotherapy was applied, in the other third a combination with antidepressants or mood stabilizers was used. In two cases the psychotic episode remitted without medication.

Because of the short duration of the episode, the effectiveness of pharmacological treatments has repeatedly been questioned. It has been supposed that the psychotic episode could as well remit without pharmacotherapy. However, such an approach is not at all advisable, in particular because the psychopathological picture, which is dramatic and acute as a rule, is often accompanied by suicidal tendencies.[1] Pharmacological intervention therefore appears mandatory. Therefore it has

to be recommended to treat all acute and transient psychotic disorders pharmacologically, in particular with antipsychotics.

Table 5. Therapy of ATPD in the acute episode (n=42).

	n	**(%)**
Antipsychotics	40	(95.2)
Antidepressants	9	(21.4)
Lithium	3	(7.1)
Carbamazepine	2	(4.8)
Valproate	0	
Benzodiazepines	29	(69.0)
Monotherapy (only antipsychotics)	27	(64.3)
No specific medication[1]	2	(4.8)

[1] Only tranqullisers.

Outcome

The results of the HASBAP showed that ATPD had a better outcome during longitudinal course than schizophrenic psychoses. Partially the outcome was more also favourable than that of bipolar schizoaffective psychoses. However, there are marked differences between different domains of outcome. Table 6 presents some central psychological markers of outcome. The good adjustment of ATPD-patients in the psychological and interactional domain manifests itself in the high proportion of patients with a stable heterosexual relationship at follow-up (63.2% versus 38.2% of patients

with PS and 50.0% of the patients with BSAD; difference between ATPD and PS statistically significant). The rate of stable heterosexual relationships of ATPD patients was not different from that of healthy controls assessed at the first point of follow-up.[25]

In all groups investigated, outcome was much less favourable when employment status was taken as a criterion (Table 6). The most impressive finding in this analysis is the high proportion of patients with disability pension especially in the group of PS and BSAD. More than 85% of patients with BSAD and more than 70% of the patients with PS received a disability pension at the end of the prospective follow-up. There was no statistical significant difference between PS and BSAD. Although significantly more patients with ATPD were without disability pensions, the proportion of patients receiving a disability pension (almost 40%) is very high when the relatively good functional level of the ATPD patients is considered. Most likely, these findings reflect a sociopolitical reality: due to the structural weakness of the former political system, unemployment in East Germany after reunification was very high during the period of this investigation.[1] The majority of patients was receiving psychotropic medication at the end of the prospective follow-up. In ATPD patients, however, medication was found significantly less often than in the control group with BSAD (Table 6).

The results with standardized instruments at follow-up confirm that ATPD patients during long term course achieve a higher level of functioning than patients with schizophrenia. The ATPD group showed a significantly more favourable outcome than the control group with PS with regard to global functioning, current symptoms and social adaptation (Table 7).

Table 6. Psychosocial status at the end of the prospective follow-up.

	Acute and transient psychoses (ATPD) **n = 38**	**Positive schizophrenia (PS)** **n = 34**	**Bipolar Schizoaffective Disorder (BSAD)** **n = 34**	**Statistical analysis**[1]
	n (%)	*n (%)*	*n (%)*	
Stable heterosexual partnership	24 (63.2)	13 (38.2)	17 (50.0)	ATPD>PS*
Occupational status				
Unemployed	8 (21.1)	2 (5.9)	1 (2.9)	ATPD>BSAD*
Employed	11 (28.9)	5 (14.7)	3 (8.8)	ATPD>BSAD*
Disability pension[2]	14 (36.8)	24 (70.6)	29 (85.3)	ATPD<PS,** ATPD<BSAD***
Old age pension	2 (5.3)	2 (5.9)	0	n.s.
Vocational training	3 (7.9)	1 (2.9)	1 (2.9)	n.s.
On psychiatric medication	27 (71.1)	31 (88.2)	33 (97.1)	ATPD<BSAD

[1] Chi-square test or Fisher's exact test: only pairwise comparisons with significant differences are indicated. *p<0.05, **p<0.01, ***p<0.001, n.s. not significant

[2] One ATPD patient received disability pension because of somatic disease; a; others of the psychiatric disorder.

Table 7. Level of global functioning (Global Assessment Schedule) psychopathology (Positive and Negative Syndrome Scale) and social

disability (Disability Assessment Schedule) at the end of the prospective follow-up.

	Acute and transient psychoses (ATPD) **n = 38**	**Positive schizophrenia (PS)** **n = 34**	**Bipolar Schizoaffective Disorder (BSAD)** **n = 34**	**Statistical analysis**[1]
Level of Functioning (GAS)	*n (%)*	*n (%)*	*n (%)*	
Good (71-100)	31 (81.5)	12 (35.3)	25 (73.5)	ATPD>PS***, BSAD>PS**[1]
Medium (51-70)	5 (13.2)	11 (32.4)	8 (23.5)	n.s.
Severely impaired (31-50)	1 (2.6)	8 (23.5)	1(2.9)	ATPD<PS*, BSAD<PS*[1]
Most severely impaired (<30)	1 (2.6)	3 (8.8)	0	n.s.
Psychopathology	*Mean±S.D.*	*Mean±S.D.*	*Mean±S.D.*	
PANSS Subscale Positive Symptoms[3]	8.1±3.2	10.4±5.7	7.8±1.5	p=0.012, ATPD<PS,*[2] BSAD<PS**[2]
PANSS Subscale Negative Symptoms[3]	10.5±6.2	17.1±9.1	10.2±5.3	p<0.001, ATPD<PS,** BSAD<PS**[2]
PANSS Subscale				

General Symptoms[3]	19.5±6.3	24.3±7.4	19.5±3.6	p=0.001, ATPD<PS,* BSAD<PS*[2]
PANSS Total Score[3]	38.1±14.0	51.8±19.7	37.5±8.3	p<0.001, ATPD<PS,** BSAD<PS**[2]
Social disability				
DAS Global score[4]	0.58±1.00	1.97±1.42	0.85±0.82	p<0.001, ATPD<PS,*** BSAD<PS***

[1] Chi-square test or Fisher's exact test: only pairwise comparisons with significant differences are indicated. *p<0.05, **p<0.01, ***p<0.001, n.s. not significant

[2] ANOVA: pairwise comparisons with significant differences (Scheffe procedure) are indicated.

[3] Possible scores range from 7-49 for positive and negative subscale, from 16 to 112 on the general subscale and from 30 to 210 on the total scale, higher score indicating more symptoms.

[4] Possible scores range from 0 to 5, higher score indicating greater deficit.

Diagnostic stability

During a mean follow-up observation time of 4.7 years, three quarters of the ATPD patients (n=30) had at least one relapse. An inspection of the episodes showed that the vast majority (70%) of the patients who relapsed had another ATPD episode (Figure 3). Forty per cent of these patients had one or more affective episodes, four patients (13.3%) had schizoaffective episodes and three patients (10%) had schizophrenic episodes during follow-up.

Further analysis of the data revealed that all 3 patients that had schizophrenic episodes during follow-up belonged to the acute schizophrenia-like psychoses (subgroup F23.2 and ICED-10). It seems that

the group of acute schizophrenia-like psychoses is the most problematic of the ATPD groups. Also with regard to other follow-up parameters it showed a greater similarity to schizophrenia than the subgroups of acute polymorphic psychoses.[1] In general, the results of the HASBAP suggest that acute schizophrenia-like psychoses might not belong to the core group of ATPD.

Conclusions

Acute and transient psychotic disorders, as defined by the ICED-10, are disorders which mainly concern females, with possible onset in all ages of adult life, but usually between the thirtieth and fiftieth year of life. Their onset is acute or even abrupt within 48 hours, but the onset is only rarely dependent on acute severe stress in spite of former assumptions. The psychotic period is very short, with a mean of 17.5 days, in some cases even only one day. Their response to antipsychotic drugs is very good and their outcome is usually favourable in spite of the fact that they are usually recurrent. They differ from schizophrenia regarding the gender distribution, age at onset and premorbid level of functioning and social interactions. But also onset development as well as duration of phenomenology shows essential differences to schizophrenia. The level of postepisodic functioning and outcome is more favourable in ATPD than in schizophrenia. They also have essential differences from schizoaffective disorders regarding gender, age at onset, mode of onset, and duration of symptomatology. But, nevertheless, ATPD and schizoaffective disorders have strong similarities regarding premorbid level of functioning, premorbid interactions and outcome.

It seems that there is no nosological independence of acute and transient psychotic disorder. The main argument against their nosological independence is their syndromatic instability. The HASBAP namely found that more than 60% of the patients with more than one episode have also other kinds of episodes, especially affective and schizoaffective than ATPD during long-term course.

Nevertheless, the ATPD are not only theoretically a very interesting group but also clinically because of their acute and dramatic symptomatology. But they are also psychologically important for the patients and their relatives – because of their favourable outcome.