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ORIGINAL PAPER

Acute and transient psychotic disorders (ICD-10 F23): a review from a European perspective

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Abstract The tenth revision of the International Classification of Mental and Behavioural Disorders (ICD-10) introduced the category F23 'Acute and transient psychotic disorders' (ATPD) to incorporate clinical concepts such as the French *bouffée délirante*, cycloid psychosis (Germany), and the Scandinavian reactive and schizophreniform psychoses. The aim of this paper is to review the literature on ATPD and to examine how it has been differentiated from the other categories of F2 group 'schizophrenia and related disorders'. Papers published between 1993 and 2007 were found through searches in Medline, PsychInfo and Google Scholar. Further references were identified from book chapters and comprehensive reviews of the topic. ATPD is reported as being prevalent in females and as having onset in early-middle adulthood. Although follow-up studies suggest that its outcome is more favourable than other disorders in the F2 group, ATPD tends to recur and half of cases convert mainly into either schizophrenia or affective disorders. No evidence supports the view that the traditional conditions subsumed under ATPD all refer to this diagnostic category. The lack of defining features and poor prognostic validity argue against the separation of ATPD from borderland categories.

Keywords Acute transient psychoses · *Bouffée délirante* · Cycloid psychosis · Reactive psychoses · ICD

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Introduction

The Kraepelinian dichotomy of schizophrenia and manic depression [42] has encouraged the formulation of additional categories to deal with intermediate conditions that differ in some respect from the two major psychoses.

Under ATPD, ICD-10 [100] has brought together clinical concepts such as *bouffée délirante* (France) [47], cycloid psychosis (Germany) [41, 46] and the reactive and schizophreniform psychoses (Scandinavian psychiatry) [22, 44, 99]. ATPD classification (Table 1) has been shaped (at least partly) by findings from the WHO collaborative study on acute psychoses [17]. The draftsmen of ICD-10 stated that 'The limited data and clinical traditions… do not give rise to concepts that can be clearly defined and separated from each other […]. The nomenclature of these acute disorders is as uncertain as their nosological status'.

At its centre is the category 'acute polymorphic psychotic disorder' (F23.0), which can include schizophrenic symptoms (F23.1). Reminiscent of the French *bouffée délirante* (BP) and Kleist and Leonhard's cycloid psychoses (CP) [16, 23, 28, 51], the clinical picture is characterised by onset within 2 weeks of varied delusions, hallucinations, perceptual disturbances, perplexity and emotional turmoil shifting from day to day or even from hour to hour.

The other categories listed under ATPD have acute onset and early remission as common features: F23.2 'schizophrenia-like psychotic disorder' subsumes schizophreniform psychosis and replaced the ICD-9 category 'acute schizophrenic episode', F23.3 'predominantly delusional disorder' involves relatively stable delusions and hallucinations that do not fulfil requirements for 'polymorphic psychotic disorder' or schizophrenia; F23.8

Table 1 Nomenclature of ATPD

F23 ATPD	Duration (months)	Nosological category
F23.0 Acute polymorphic disorder without schizophrenic symptoms	<3	Bouffée délirante and cycloid psychosis without schizophrenic symptoms
F23.1 Acute polymorphic disorder with schizophrenic symptoms	<1	Bouffée délirante and cycloid psychosis with schizophrenic symptoms
F23.2 Acute schizophrenia-like psychotic disorder	<1	Acute schizophrenia, brief schizophreniform psychosis, oneirophrenia, schizophrenic reaction
F23.3 Other acute predominantly delusional disorders	<3	Paranoid reaction, psychogenic paranoid psychosis
F23.8 Other acute and transient psychotic disorders	<3	–
F23.9 Acute and transient psychotic disorder unspecified	<3	Reactive psychosis unspecified

'other acute and transient psychotic disorders' and F23.9 'acute and transient psychotic disorder unspecified' are residual classes for cases that cannot be accommodated otherwise.

The duration of psychotic disorders with schizophrenic symptoms is limited to 1 month because F20 'schizophrenia' requires a period longer than 1 month, whereas if acute psychotic disorders have polymorphic features or non-bizarre delusions the diagnosis should be changed to F22 'persistent delusional disorder' after 3 months. Although emotional changes and affective features may be prominent, ATPD does not satisfy the diagnostic criteria either of depressive or manic disorder. Apart from 'acute schizophrenia-like psychotic disorder', the field trials of ICD-10 [83] reported that the other categories failed to achieve 'good' reliability with kappa values of 0.42–0.54.

A fifth code may be used to indicate whether each disorder is associated or not with 'acute stress' (F23.×1/0). The inclusion of reactive psychosis (RP) under ATPD led to the creation of a diagnostic category containing both reactive and not reactive 'psychotic' disorders. RP has long been problematic for psychiatric nosography [15, 87, 92, 95], particularly it raises the issue of whether such phenomena should be considered as 'psychosis' or 'psychological reaction' in Schneider's sense [84].

Likewise, the Diagnostic and Statistical Manual of Mental Disorders has since its fourth edition (DSM-IV) listed 'Brief psychotic disorder' (BPD), which 'may follow or not marked stressors' [4]. This statement has been interpreted as meaning that some precipitating event is presumed but cannot be detected, or else that a condition rather different from RP is being described, perhaps cycloid psychosis if only that diagnosis were more accepted in Anglo-American psychiatry [62].

The aim of this paper is to detail the epidemiology, heredity, clinical features, course and outcome of ATPD pointing out differences from other categories of F2 group 'schizophrenia and related disorders'.

Method

Guidelines for systematic reviews as set by Geddes and Carney [24] were followed to identity all the relevant articles. Computerised Medline, PsychInfo and Google Scholar searches were performed using the terms: ICD-10 and 'acute transient psychotic disorders' or 'ATPD', ICD-10 and 'polymorphic psychotic disorder', 'ATPD' and '*bouffée délirante*', 'cycloid psychosis', 'reactive psychosis' or 'schizophreniform psychosis', and DSM-IV and 'brief psychotic disorder'. Reference lists in the located papers provided further sources. Book chapters and comprehensive reviews were cross-referenced.

The search was restricted to (1) works in English, French, and German; (2) published in a peer-reviewed journal between January 1993 and December 2007; (3) including at least ten individuals and (4) diagnosis made using ICD-10 and DSM-IV criteria. Where publications reported overlapping data the most informative or recent were included.

To determine the clinical validity of ATPD, the available evidence was reviewed using the method described by Robin and Guze [79] and further developed by Kendell [38] and Kendler [40]. The assumption behind this approach is that each category is defined by characteristic features (clinical, demographic, neurobioloical, etc.), and patients given the same diagnosis will have a similar prognosis, treatment response and an increased frequency of illness in family members.

This review does not deal with the cross-cultural relevance of ATPD. Reference to the so-called 'non-affective acute remitting psychoses' (NARP), as frequently described in developing countries [89], is excluded.

Results

Due to the limited and disparate evidence research findings are presented according to Kendler's [39] three main

classes of potential 'validators': (1) antecedent (familial aggregation, premorbid personality, demographic and precipitating factors); (2) concurrent (biological and psychological factors, symptom measures); (3) prognostic (diagnostic stability, response to treatment, course and outcome).

Antecedent validators

Demographic factors

Two studies reported on incidence of ATPD. Singh et al. [86] estimated an annual rate of 3.9 per 100,000 population in Nottingham (UK), with a male/female ratio of 1.87. Males were more likely to have a false positive diagnosis, and only a few cases did not develop another disorder after 3 years.

The incidence of ATPD based on data from the Danish national register in 1996 was 9.6 per 100,000, though 60% of cases tended to change diagnosis on subsequent admissions [13].

In Germany, Jäger et al. [29] found a frequency of 7.9% in first admissions for non-affective psychoses, similar to that reported by Albus et al. [3], and Marneros et al. [51].

A comparative study of the ICD-10 diagnoses used in German and Danish psychiatric hospitals pointed to higher rates of ATPD in the latter [43].

The field trials of ICD-10 [83] included 135 cases with ATPD, accounting for 11.4% of F2 category 'schizophrenia and related disorders'.

Furthermore, ATPD is reported as being preponderant in females with a mean age in the early-middle adulthood [13, 19, 36, 51, 82, 88].

Among ATPD subgroups, despite the relatively small number of cases, those with schizophrenic features (F23.1 and F23.2) showed a reverse gender distribution, being prevalent in males, and an earlier age at onset than the mean age of patients with ATPD (31.8 and 27.8 years vs. 42.2 years), indicating a close kinship with schizophrenia [13].

Familial psychiatric morbidity

A family study of 40 cases with ATPD compared with schizophrenic patients [19] reported that: (a) ATPD was three times more frequent in first-degree relatives of patients with ATPD than family members of schizophrenics; (b) the risk of schizophrenia was significantly increased in first-degree relatives of schizophrenic patients; (c) the risk of affective disorders did not exceed that expected in the general population. It was also found that first-degree relatives of patients with schizophrenia-like symptoms were more likely to develop schizophrenia than ATPD. It has been argued that ATPD is a genetically heterogeneous category including a subgroup that overlaps with schizophrenia or at the interface between the two disorders, whereas there is no relationship to affective psychoses.

A later study by Das et al. [20] showed that ATPD patients with a family history of mental disorders experienced fewer life events and scored less cumulative stress before illness onset than those without familial psychiatric morbidity. These findings lend support to the view that cases with ATPD may be regarded as having an altered sensitivity on the basis of a familial predisposition that render them susceptible to stress effects according to Zubin's stress-vulnerability hypothesis [101].

Studies since then have not replicated such results. Marneros et al. [51] reported a higher rate of mental disorders in family members of patients with ATPD than the relatives of healthy controls, but no significantly raised risk of psychotic disorders was found.

Premorbid personality

Pillmann et al. [75] carried out a comparison between ATPD patients and control groups with schizophrenia, schizoaffective disorder and healthy subjects using the 5-NEO Factor Inventory (neuroticism, extraversion, openness to experience, agreeableness, conscientiousness). No relevant difference between ATPD and healthy controls occurred, whereas patients with schizoaffective disorder and particularly those with schizophrenia showed markedly higher neuroticism, and lower extroversion and conscientiousness. The latter also had fewer premorbid social relation functions and difficulty in entertaining stable relationships.

Jørgensen et al. [35] observed that almost two-thirds of their patients with ATPD qualified for a concomitant diagnosis of personality disorder; this rate dropped significantly 1 year later [34]. Personality disorder could be a transient consequence of psychotic decompensation or an effect of pharmacological treatment because most patients were taking neuroleptic drugs on hospital discharge.

These findings are consistent with studies of Singh et al. [86], and Suda et al. [88] that cases with ATPD do not have significant premorbid dysfunctions.

Precipitating factors

ICD-10 defines 'acute stress' as events that would be regarded as stressful to most people in similar circumstances (bereavement, unexpected loss of partner or job, etc.), occurring within 2 weeks before onset of psychotic symptoms.

The study of Sajith et al. [82] showed that life events are involved in two-thirds of cases, most often with abrupt onset (<48 h). Such findings compared favourably with a

previous work by Okasha et al. [64] that 74% of their Egyptian patients with acute psychosis experienced some stressful event.

Likewise, ATPD tends to have an abrupt onset in European countries, but 'acute stress' was recorded only in a small number of cases [13, 29, 35, 51, 86].

Yet, there is evidence that life events are more frequently associated with ATPD than other disorders of F2 group [30] or manic disorder [14].

Apart from variations between industrialised and developing countries, where social and cultural factors are usually associated with acute psychoses [25, 49, 50], these studies have not only disproved that stress factors trigger ATPD but also raised the problem of defining stress other than in very general terms and its temporal relationship to illness onset. It is likely that 'acute stress' has been underestimated as represented an additional diagnostic feature. Research to date suggests that the Scandinavian concept of RP bears little continuity to ATPD and conformed more to 'predominantly delusional disorder' among ATPD subtypes [12]. The following may account for this: (a) the psychological concept of 'reactivity', on which RP is based, has been neglected in ICD-10 [26]; (b) emotional syndromes, formerly the main group of RP, are now subsumed under affective disorders and (c) reactive confusional states listed as either dissociative disorders or organic mental diseases.

Concurrent validators

Except for Pepplinkhuizen et al. [65], who argued for metabolic changes in amino acid (serine) pathways in acute polymorphic psychotic disorders by analogy with the clinical phenomena induced by psychedelic drugs, no research on neurobiological mechanisms has been conducted.

In view of common electro-encephalographic alterations associated with episodic psychotic disorders, Rottig et al. [81] examined EEG recordings of patients with ATPD, but no increased pattern of cerebral activity was observed.

Symptom measures

Patients affected with ATPD are more likely to experience shifting polymorphic features, e.g. varied delusions, mood swings, and fewer negative symptoms than schizophrenic and schizoaffective controls [52].

Jäger et al. [30] reported that attempts to differentiate schizophrenia from ATPD on the basis of Schneider's first-rank symptoms failed because cases with first-rank symptoms were common. Although the first-rank symptoms occur more frequently in schizophrenic patients, only the negative symptoms distinguish schizophrenia from ATPD.

Continuity of ATPD to bouffée délirante and cycloid psychoses

Bouffée délirante stems from the nineteenth century French theory of 'degeneration' [10]. Magnan [47] separated delusional disorders with acute onset and good prognosis from conditions with a relatively more stable and uniform clinical pattern (*délire chronique à évolution sistematique*), leading eventually to mental deterioration. He stressed the polymorphic nature of BD attributed to a constitutional predisposition, while downplaying the contribution of external factors.

Magnan's formulation bears striking similarities to that put forward in the 1950's by Ey [21], who subsumed BD within his 'organo-dynamic' theory as acute delusional disorders with an intermediate level of destructuration of consciousness between manic depression and confusional-oneiroid states.

To improve reliability Pull et al. [78] later tried to define explicit criteria: (a) age at onset 20–40 years; (b) acute onset; (c) no history of mental disorders other than BD; (d) complete remission within weeks or few months; (e) fleeting polymorphic delusions and/or hallucinations, depersonalisation, derealisation, confusion, depressed or elated mood and (f) exclusion of organic causation, alcohol or drug abuse. Studies to date have reported variable patterns: 30–40% of BD had an episodic course with complete recovery, 20% tended to recur and the remaining developed schizophrenia or manic depression [7, 98].

The views of Magnan were to influence German psychiatry and 'degeneration' became the essential mechanism of 'endogenous' psychoses. Kleist [41] coined the term *zykloide Psychosen* to refer to 'endogenous' disorders that were 'atypical' variants of manic depression. These included 'confusion psychosis' (excited-inhibited), 'motility psychosis' (hyperkinetic-akinetic), and ego-psychosis.

Leonhard [46], in turn, described a third clinical form: 'anxiety-happiness psychosis', which combined anxiety psychosis and revelation psychosis borrowed respectively from Wernicke and Kleist [70]. He argued that 'anxiety-happiness psychosis' featured impairment of affect, 'confusion psychosis' impairment of thought and 'motility psychosis' impairment of psychomotor activty. Bipolar symptomatology, phasic or recurrent course, and good outcome without residual deficits were the characteristic features.

The concept of CP was further developed by Perris [68], who provided an 'operational definition', complemented by diagnostic criteria, which became the standard approach to CP in Anglophone psychiatry [71]. Contrary to Leonhard's clear-cut division of CP, what Perris designated as 'cycloid psychotic disorder' is a condition with sudden onset that is 'polymorphous in its clinical manifestations' characterised

by confusion, mood-incongruent delusions, hallucinations, overwhelming anxiety, feelings of happiness or ecstasy, motility disturbances (akinetic or hyperkinetic), a concern with death and mood swings [69].

Although research findings suggest that CP have clinical and prognostic features that distinguish them from schizophrenia and affective psychoses, little evidence supports their separation into different subtypes [8, 11, 18, 33, 48, 58, 85]. Leonhard's concept also includes a group of older patients with better response to treatment and fewer affective features than Perris and Brockington's operational diagnosis [67].

Comparative studies between ATPD and CP found that only 55% of cases had a positive diagnosis for both disorders [73]. A closer overlap with CP emerged when comparison is restricted to polymorphic subcategories of ATPD or 'sudden onset' as defined by Perris and Brockington [71] 'within a few hours or days' is extended up to '2 weeks'.

Such findings are consistent with studies undertaken by Modestin et al. [57] that 67% of those regarded as having CP share the diagnosis of 'polymorphic psychotic disorder'.

As pointed out by Peralta and Cuesta [66], there is little continuity between ATPD and CP, which increases slightly when comparison involves only cases with 'polymorphic psychotic disorder', or those with prominent affective symptoms are withdrawn. ATPD also shows so restrictive temporal criteria as to have precluded diagnosis of a number of cases with CP.

This compared favourably with reports by van der Heijden et al. [97] that more than 50% of patients with 'polymorphic psychotic disorder' fail to meet the criteria for CP.

A further study comparing ATPD with the French concept of BD by Pillmann et al. [76] revealed that only 29% of patients with ATPD fulfil the criteria for BD according to Pull et al. [78]. The differences have been ascribed either to heterogeneity of ATPD or narrower criteria of BD.

Cross-system comparisons

Similar, yet not identical to ATPD [59], the DSM-IV category BPD [4] is characterised by: (a) sudden onset; (b) duration of less than 1 month and (c) at least one of the following symptoms: delusions, hallucinations, disorganised speech, grossly disorganised or catatonic behaviour.

DSM-IV also listed 'schizophreniform disorder' (SFD). First introduced in DSM-III, so as to accommodate psychotic disorders with good prognosis that (a) meet all the criteria for schizophrenia and (b) last more than 4 weeks but less than 6 months. SFD has little to do with Langfeldt's [45] original formulation.

Comparative analyses showed that ATPD do not conform to any specific category in DSM-IV: only one-third of cases fulfil the criteria for BPD, 41% those for SFD and 25% unspecified psychotic disorder. Among ATPD subcategories, 'polymorphic psychotic disorder without schizophrenic symptoms' only partially overlaps with BPD, while 'schizophrenia-like psychotic disorder' has closer similarities to SFD [36].

This lends support to findings from van der Heijden et al. [97] that less than half of patients with 'polymorphic psychotic disorder' meet the criteria for BPD.

Pillmann et al. [74] reported that 62% of patients with ATPD satisfy the criteria for BPD and 31% those for SFD. It was found that a number of cases either exceeded duration criteria of BPD or presented a different mode of onset. Only a moderate overlap between BPD and 'polymorphic psychotic disorder without schizophrenic symptoms', and between SFD and 'schizophrenia-like psychotic disorder' occurred.

A previous study reported an unusually high number of cases with a positive diagnosis for both disorders [77].

Prognostic validators

Diagnostic stability, course and outcome

Thirteen papers reported on a total of 884 cases, with follow-up periods from 1 to 15 years (Table 2). Four of these were from developing countries (Egypt, India and Iran), and 9 from industrialised countries (Europe and Japan).

In developing countries, ATPD has a relatively high diagnostic stability (54–73%) and low rates of relapse [64, 82, 93]. The study of Sajith et al. [82], including a cohort of Indian patients with a first admission diagnosis of 'acute polymorphic psychotic disorder without schizophrenic symptoms', found that abrupt onset and brief duration (<1 month) predicted diagnostic stability over 3 years.

A further study of 60 patients with a first episode of psychosis from Iran revealed that 10 cases with ATPD had their diagnosis confirmed 1 year later [6].

Likewise, the acute remitting psychoses have high stability particularly in developing countries, where these disorders show a favourable prognosis [2, 91], but seldom fulfil the criteria for ATPD [60].

Apart from an early follow-up study of Jørgensen [34], which reported a fairly high diagnostic stability, in Europe more than 50% of cases with ATPD tended to change diagnosis into another F2 category 'schizophrenia and related disorders' or affective disorders [13, 36, 51, 86]. Even the frequency of recurrences is increased compared with rates observed in developing countries [29, 31, 36, 51, 86].

Table 2 Follow-up studies of ATPD (see text for details)

Study	Cases (M/F)	Follow-up	Category	Stability (%)	Findings
Abe et al. [1]	16 (8/8)	>12 years	F23.0	63	30% changed to schizophrenia, 2/3 tended to recur
Amini et al. [6]	10	1 year	nr	100	First-episode psychosis study of 60 patients from Iran. ATPD resulted the most stable category
Castagnini et al. [13]	503 (243/260)	6 years	F23.3 31%, F23.9 28%, F23.0 21%, F23.1 7%	39	Register-based study of first admissions representative of the Danish population. Of 416 cases followed-up 17% mono episodic course, 22% recurrent course, 30% changed to another F2 category and 11% to affective disorders
Jäger et al. [29]	94 (49/45)	3–7 years	F23.2 33%, F23.1 30%, F23.0 22%, F23.3 10%	–	Of 73 cases followed-up 42% single episode, 46% recurrent psychotic or affective episodes, 12% continued social impairment
Jäger et al. [31]	30	15 years	nr	–	Retrospective study of 197 first admissions with functional psychoses in 1980–1982. ATPD fared better than schizophrenia and delusional disorder: 30% single episode, 50% recurrent course and 20% chronic states
Jørgensen [34]	15 (6/9)	8 years	nr	87	First admissions with broadly defined delusional disorder. ATPD outcome better than schizophrenia (mean GAF score ≥70)
Jørgensen et al. [36]	51 (12/39)	1 year	F23.0 55%, F23.2 16%, F23.3 16%, F23.1 14%	52	Of 46 cases followed-up 15% converted to schizophrenia, 28% affective disorders, 33% relapsed. ATPD mean GAF score ≥70 higher than schizophrenia
Marneros et al. [53]	42 (9/33)	4.7 years (mean)	F23.0 33%, F23.1 33%, F23.2 26%, F23.3 2%	54	Of 39 cases followed-up 3/4 relapsed, 30% changed to affective disorders, 10% schizoaffective disorder, 8% schizophrenia. ATPD outcome (mean GAS score ≥80) better than schizophrenia. One-third stable remission after 7 years [72]
Okasha et al. [64]	50 (25/25)	1 year	nr	54	Nearly 2/3 with acute psychosis had complete remission
Sajith et al. [82]	45 (13/32)	3 years	F23.0	73	Ten cases changed to bipolar affective disorder. Short duration (<1 month) and abrupt onset predicted diagnostic stability. ATPD mean GAF score >70
Singh et al. [86]	32 (21/11)	3 years	F23.3 37%, F23.2 22%, F23.0 10%, F23.1 9%	34	ATPD overall outcome (mean GAS score ≥70) better than schizophrenia and similar to affective disorders
Suda et al. [88]	25 (6/19)	>5 years	F23.0	60	ATPD have better premorbid functioning and episodic course with longer remissions than schizophrenia
Thangadurai et al. [93]	87 (45/42)	13 months	nr	64	26% converted to schizophrenia and 9% to affective disorders; 11% recurrent course

GAF Global assessment of functioning, *GAS* global assessment scale, *NR* not reported

Higher stability rates were found by Abe et al. [1] and Suda et al. [88]. Such studies showed that patients with 'acute polymorphic disorder without schizophrenic symptoms' are more likely to have an episodic course with longer remissions than those who later developed schizophrenia, and may be regarded as having 'atypical' or 'periodical' psychoses according to the Japanese psychiatric tradition [27, 56].

Marneros et al. [51] reported that three quarters of their cases with ATPD had a recurrent affective or psychotic episode, 30% developed affective disorders, and a relatively small number converted into either schizoaffective disorder or schizophrenia. ATPD patients fared better than schizophrenic and schizoaffective controls in terms of adaptation patterns, social disabilities and global functioning. Additional information suggests that only one-third enjoyed a stable remission and discontinued medication after 7 years [72].

Jäger et al. [29] conducted a follow-up of 73 patients within 3–7 years since their first admission and found that only 31 (42%) had a single episode, while the remaining 42 (58%) experienced recurrent relapse or continued disability. Persistence of negative and/or depressive symptoms predicted unfavourable outcome.

The outcome of ATPD proved to be more favourable than in schizophrenic patients by follow-ups from the Nottingham first-episode psychosis study, though two-thirds of cases changed diagnosis over 3 years [5, 86]. Female gender and good premorbid adjustment predicted favourable outcome. Comparing schizophrenia-like and non-schizophrenic subgroups of ATPD, Singh et al. [86] also found stability rates markedly lower for 'polymorphic psychotic disorder' and 'predominantly delusional disorder'. This suggests that neither diagnostic stability nor good outcome is significantly associated with any particular subcategory [13, 29].

Furthermore, follow-up studies including a majority of patients with polymorphic psychotic symptoms [36, 51, 82] reported that they tend to develop more frequently affective disorders than those with 'predominantly delusional disorder' or 'schizophrenia-like psychotic disorder' who later changed instead to another category of F2 group [13, 86].

Discussion

ATPD refers to a cluster of psychotic disorders characterised by: (a) acute onset; (b) early remission; (c) presence of polymorphic, schizophrenic or predominantly delusional syndromes and (d) association or not with acute psychological stress.

The available evidence suggests that case identification and follow-up are difficult in ATPD due to the heterogeneous and infrequent nature of the clinical phenomena it encompasses. ATPD is consistently reported to occur in females between early and middle adulthood, as opposed to schizophrenia that is more frequent in younger males [54, 94]. The annual incidence ranges from 3.9 to 9.6 per 100,000 population, but less than 40% of cases have their diagnosis confirmed [13, 86]. Also its prevalence is variable, reflecting either surveys from developing countries, where acute remitting psychoses have a greater frequency [89], or diagnostic influences that may have affected recognition of ATPD [12, 43].

Although the morbidity risk appears significantly increased in first-degree relatives of patients with ATPD and no excess of schizophrenia can be found, except in family members of those with schizophrenia-like symptoms [19]; such findings have not yet been replicated. Preliminary results also suggest that cases with ATPD may be vulnerable to stress [20]. Research to date encourages the view that stress reactivity would be mediated through an emotional-driven pathway leading to florid psychotic disorders with good prognosis, whereas cognitive impairment involved in insidious-onset psychoses associated with negative symptoms and poorer outcome [63].

The clinical picture is characterised by acuteness of onset and shifting polymorphic features, though attempts to delineate ATPD from borderland categories have had limited success. In particular, intrinsic diagnostic instability is due to the fleeting nature of symptoms [83]; no evidence supports the subdivision of polymorphic psychotic disorders 'with' and 'without' schizophrenic symptoms and duration respectively of less than 1 or 3 months, and the vaguely defined 'predominantly delusional disorder' is an artificial construct (a diagnosis of 'exclusion'). All these shortcomings have important implications both for clinical practice and research where accuracy of diagnostic assessment is essential to collect patients.

A further finding is that ATPD has an episodic course with longer remissions than cases that later develop schizophrenia [88]. Patients with ATPD have a favourable response to drug treatment, but are usually prescribed antipsychotic medications for long periods to prevent recurrences [32, 51].

Abrupt or acute onset, female gender and good premorbid functioning predicted diagnostic stability and favourable outcome [82, 86]. Although such features are common to patients, whose condition is known to be distinct from schizophrenia in course and outcome, they do not identify any homogeneous category [37, 44, 50, 55, 80, 96].

More to the point, follow-up studies showed that more than half of those affected with ATPD changed to another F2 category 'schizophrenia and related disorders' or mood disorders. The frequency of recurrent affective and psychotic episodes has been interpreted as indicating that

ATPD bridges schizophrenia to affective psychoses, according to a very broad view of the psychotic spectrum [51].

The low predictive power of ATPD reflects the lack of information about its defining features. This argues against ATPD classification into various subtypes and its separation from the other categories of F2 group. As pointed out by Kendell [38], 'in the context of clinical practice statements about diagnostic validity are essentially statements about predictive power… It is not enough, however, to demonstrate that two syndromes characteristically have a different outcome. It has to be demonstrated that this is attributable to the diagnostic difference and not to some other difference associated with this, in age or age of onset, social class, etc'.

Susser et al. [61, 89, 91] reported clinical and epidemiological features that distinguish NARP, a close variant of ATPD, from other forms of remitting psychoses and schizophrenia: (a) an incidence almost twice as high in females as in males; (b) acute onset; (c) no or few negative symptoms; (d) a modal duration of 2–4 months. It has been suggested that diagnostic stability of ATPD might be improved excluding affective features (emotional turmoil), and extending duration up to 6 months [60, 90], but this would be difficult because changes necessitate a recalibration of the concepts of schizophrenia and persistent delusional disorder [9].

The above evidence also indicates that:

(a) ATPD has not only failed to encourage research but little continuity to traditional categories of the European psychiatry, particularly BD and RP, can be found [12, 76]. This reveals that it would be simplistic to conflate BD, CP and RP into the diagnostic paradigm of ATPD. It is also likely that reliance on Perris' concept of CP has given undue weight to 'polymorphic' symptoms of ATPD [8, 28].
(b) The issue of psychological reactivity has received little attention; 'acute stress' is defined in very restrictive terms and represents an additional diagnostic feature for ATPD. What is an adequate stress and its temporal relationship to illness onset need further clarification.
(c) Due to different definition of onset and shorter duration criteria DSM-IV BPD only partially overlaps with ATPD.

Methodological limitations

This review neither calls for detailed consideration of NARP [89] nor of the cross-cultural validity of ATPD.

Due to little and disparate evidence, no meta-analysis of pooled data was made; research findings were arranged according to Kendler's [39] three main classes of 'validators' (antecedent, concurrent and prognostic factors).

Although most of the studies being reviewed used standardised instruments for data collection and assessment of outcome, differences in design (prospective vs. retrospective study), length of follow-ups and in sampling methods (incident vs. prevalent cases) make meaningful comparisons difficult. Other limitations that might have increased variance in course and outcome are the paucity of prospective studies with adequate numbers of patients and differences in the distribution of ATPD subcategories.

Conclusion

ATPD is a composite category with uncertain validity. To what extent the French BD, the German CP and the Scandinavian RP all refer to this diagnostic group remains elusive. Acute onset, fleeting polymorphic symptoms, and age and sex differences from schizophrenia deserve further investigation.

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