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Schizoaffective Disorder in the DSM-5

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ABSTRACT

Characterization of patients with both psychotic and mood symptoms either concurrently or at different points during their illness has always posed a nosological challenge and this is reflected in the poor reliability, low diagnostic stability, and questionable validity of DSM-IV Schizoaffective Disorder. The clinical reality of the frequent co-occurrence of psychosis and Mood Episodes has also resulted in over-utilization of a diagnostic category that was originally intended to rarely needed. In the Diagnostic and Statistical Manual of Mental Disorders, fifth edition, an effort is made to improve reliability of this condition by providing more specific criteria and the concept of Schizoaffective Disorder shifts from an episode diagnosis in DSM-IV to a life course of the illness in DSM-5. When psychotic symptoms occur exclusively during a Mood Episode, DSM-5 indicates that the diagnosis is the appropriate Mood Disorder with Psychotic Features, but when such a psychotic condition includes at least a two-week period of psychosis without prominent mood symptoms, the diagnosis may be either Schizoaffective Disorder or Schizophrenia. In the DSM-5, the diagnosis of Schizoaffective Disorder can be made only if full Mood Disorder episodes have been present for the majority of the total active and residual course of illness, from the onset of psychotic symptoms up until the current diagnosis. In earlier DSM versions the boundary between Schizophrenia and Schizoaffective Disorder was only qualitatively defined, leading to poor reliability. This change will provide a clearer separation between Schizophrenia with mood symptoms from Schizoaffective Disorder and will also likely reduce rates of diagnosis of Schizoaffective Disorder while increasing the stability of this diagnosis once made.

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1. Historical perspective

The diagnosis of Schizoaffective Disorder has undergone shifting conceptualizations in the different Diagnostic and Statistical Manual (DSM) editions. Up until the most recent edition, the DSM-5, the most influential historical perspective was that of Kraepelin (1920) who proposed

that there is a dichotomy between the diagnoses of Schizophrenia (*dementia praecox*) versus psychotic Mood Disorders (manic-depressive insanity). According to this dichotomous perspective, avolition, decreased emotional expression, cognitive deterioration and a poor outcome are associated with Schizophrenia, whereas the psychoses associated with depression or mania have a better outcome and an expectation of inter-episode recovery. This dichotomous view sits uneasily with the observation that a substantial portion of cases meeting the criteria for Schizophrenia experiences episodes of Mood Disorder as well as having periods of non-affective psychosis. Prior editions of the DSM employed the concept of Schizoaffective Disorder to account for

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the clinical reality of this frequent overlap of affective and non-affective psychoses in the same individual (Table 1).

The first DSM edition (1952) included “Schizophrenic reaction, Schizo-affective type” and the DSM II (1968) subdivided this diagnosis into “Schizo-affective type, excited” and “Schizo-affective type, depressed” within the Schizophrenia chapter. The designations were intended for cases with significant admixtures of “schizophrenic symptoms” and “affective reactions,” distinguishing between “excited” and “depressed” types of cases based on pronounced elation *versus* depression. The mental content of these cases was defined as being predominantly schizophrenic, with prolonged elation or depression. These categories were also used for cases with predominantly affective states if they also displayed schizophrenic-like thinking or bizarre behavior. Despite the expectations based on predominantly affective psychotic state at presentation, these cases were expected to become “basically schizophrenic in nature” with prolonged observation over the illness course.

In DSM III (1980), the term “Schizoaffective Disorder” was introduced although no diagnostic criteria were proposed. Like the earlier versions of the DSM, the category was used for those instances in which the clinician was unable to make a differential diagnosis with any degree of certainty between an Affective Disorder and either Schizophreniform Disorder or Schizophrenia. The concept again addressed the clinical need for a diagnostic term for the many psychotic cases that did not fit neatly into the criteria for one of the disorders in the Kraepelinian dichotomy of either Schizophrenia or Bipolar Disorder. Uncertainty remained as to the validity of this condition in the DSM III. The authors acknowledged that, “future research (was) needed to determine whether there is a need for this category and if so, how it should be defined and what its relationship is to Schizophrenia and Affective Disorder”. In the entire DSM-III, this was the only diagnosis without explicit operational criteria (Tandon, 2012).

In the 1987 DSM III-R, diagnostic criteria for Schizoaffective Disorder were first operationalized. The four diagnostic criteria that were introduced in the DSM III-R have remained essentially unchanged until the current edition, requiring (A) at least one period of psychosis (severe enough to meet criteria A for Schizophrenia) WITH affective symptoms; (B) at least one period of psychosis, for at least two weeks, WITHOUT affective symptoms; (C) the total duration of Mood Episodes is “not brief” and (D) there is no “organic cause”. While a “somewhat better” prognosis of Schizoaffective Disorder, compared to Schizophrenia, was listed as a potential validator in DSM III-R, inter-episode recovery or good outcome was never included as diagnostic criteria. Schizoaffective Disorder was specified as being of either a Bipolar Type, for those experiencing a current or previous Manic Syndrome, or a Depressive Type, for those with no current or previous Manic Syndrome.

The DSM-IV (1994) continued the Schizoaffective Disorder Diagnosis as either Depressive Type or Bipolar Type, but expanded the Bipolar Type to include Mixed Episodes in addition to Manic Episodes. The DSM-IV-TR text revision in 2000 (Table 2) did not alter these

definitions. It cautiously noted that the Schizoaffective Disorder “category fills a necessary and important hole in the diagnostic system, but unfortunately it does not do its job very well,” (DSM-IV-TR Sourcebook).

The Criterion C for Schizoaffective Disorder (*i.e.*, mood symptoms are present for a “substantial portion” of the entire illness duration, which is the duration of both the active and residual periods of the illness (DSM-IV, APA)) was very controversial. Some clinicians viewed any full affective syndrome in an illness course as substantial, for example a Bipolar Mood Episode lasting for 12 months in a 10 year course of illness that was otherwise predominated by psychotic symptoms without a Mood Episode (only 10% of the total illness duration). On the other hand, 12 months of a full Mood Episode syndrome in addition to several weeks of psychosis without a Mood Syndrome in an illness of 18 month duration (67% of the total illness duration), was judged to be substantial by most clinicians. Another controversial issue for clinicians was whether several intermittent affective symptoms over a chronic psychosis were compatible with the Schizoaffective Disorder Diagnosis (*i.e.*, only pressured speech and grandiose delusions), even in the absence of meeting full criteria for a Mood Episode.

The clinical and nosological uncertainties resulting from adherence to the Kraepelinian dichotomy were appreciated by all of the DSM edition authors, namely that many cases with chronic psychosis have significant admixtures of prominent psychotic symptoms and affective features but do not clearly satisfy the criteria for Bipolar Mood Disorders or for Schizophrenia. In the earlier editions, Schizoaffective Disorder was intended as a diagnosis of last resort, *i.e.*, when neither Schizophrenia nor Bipolar Disorder could be diagnosed with sufficiently certainty. At no point did the DSM editions embrace Kasanin's notion, defined in, 1933, of Schizoaffective Disorder as a disorder with a better outcome. Kasanin's concept of Schizoaffective Disorder was viewed as more in line with the concepts of “*buffée délirante*” and “acute and transient psychotic disorder”, which describe brief or short-lived episodes comprised of affective and psychotic features, rather than chronic psychotic conditions. However, Schizophrenia prognostic scales routinely treated affective symptoms as good prognosis indicators.

2. Schizoaffective Disorder as specific disease entity

The validity of a diagnosis and its utility in clinical practice and research depend upon its reliability. Schizophrenia and Mood Disorders can be diagnosed with high reliability, but there is only a fair to poor diagnostic reliability for cases meeting the criteria for Schizophrenia who have Mood Episodes in addition to demonstrating at least two weeks of psychosis in the absence of a Mood Episode (Tandon and Maj, 2008). As described, the lack of specific criteria for the total duration of Mood Syndromes in the course of psychosis is problematic and may be the major factor in the poor reliability of Schizoaffective

Table 1
The diagnosis Schizoaffective Disorder in prior DSM^a editions.

	Year	Schizoaffective Disorder diagnoses
DSM I	1952	000-x27 Schizophrenic reaction, Schizo-affective type (300.6)
DSM II	1968	295.73 Schizophrenia, Schizo-affective type, excited 295.74 Schizophrenia, Schizo-affective type, depressed
DSM III	1980	295.70 Schizo-affective Disorder No operational diagnostic criteria
DSM III-R	1987	295.70 Schizoaffective Disorder –Bipolar Type –Depressive Type Introduces 4 diagnostic criteria
DSM-IV	1994	Mixed subtype of Bipolar Type added No change of diagnostic criteria
DSM-IV-TR	2000	No change

^a List APA copyright dates and information for each edition.

Table 2
DSM-IV-TR criteria: Schizoaffective Disorder (295.70).

- An uninterrupted period of illness during which, at some time, there is either a Major Depressive Episode, a Manic Episode, or a Mixed Episode concurrent with symptoms that meet Criterion A for Schizophrenia. Note: The Major Depressive Episode must include Criterion A1: depressed mood.
- During the same period of illness, there have been delusions or hallucinations for at least 2 weeks in the absence of prominent mood symptoms.
- Symptoms that meet criteria for a Mood Episode are present for a substantial portion of the total duration of the active and residual periods of the illness.
- The disturbance is not due to the direct physiological effects of a substance (*e.g.*, a drug of abuse, a medication) or a general medical condition.

Specify type:

Bipolar Type: if the disturbance includes a Manic or a Mixed Episode (or a Manic or a Mixed Episode and Major Depressive Episodes)

Depressive Type: if the disturbance only includes Major Depressive Episodes

Disorder (Maj et al., 2000). Nurnberger et al. (1994) found a low reliability for Schizoaffective Disorder, even when a structured diagnostic interview and best estimate procedures were made by experts in the field that included information from family informants and prior clinical records. By contrast, these procedures, which employed the Diagnostic Interview for Genetic Studies (DIGS), produced excellent reliabilities for all other psychotic conditions (0.73 to 0.95). For Schizoaffective Disorder, the different subtypes were commonly confused with Schizophrenia (Faraone et al., 1996). In this research study by the NIMH Genetics Initiative collaborators, the reliability of Schizoaffective Disorder was improved by using an explicit threshold for the duration of mood symptoms relative to the episode of psychosis.

Another limitation of DSM-IV Schizoaffective Disorder is that the temporal stability is not clear. Schwartz et al. found that the stability of diagnoses between two time points (6- and 24-month follow-up assessments after an initial assessment at first-admission to a psychiatric inpatient facility) was 92% for Schizophrenia, 83% for Bipolar Disorder, 74% for Major Depression, but only 36% for SA (Schwartz et al., 2000). Finally, the clinical utility is not established. The diagnostic category is often used without adherence to criteria. When 59 patients with a discharge diagnosis of Schizoaffective Disorder were re-evaluated, none of them were found to meet the DSM-IV criteria for Schizoaffective Disorder (Vollmer-Larsen et al., 2006). Nonetheless, this diagnosis is commonly used in clinical practice and may generally be viewed as more benign than a diagnosis of Schizophrenia. A recent review of psychotic disorders from large Private Insurance and Medicare databases in the U.S. (unpublished data made available to the Psychosis Work-Group, 2009), found that the diagnosis of DSM-IV Schizoaffective Disorder was used for about a third of cases with non-affective psychotic disorders. Hence, this unreliable and poorly defined diagnosis is clearly overused.

3. Beyond the Kraepelinian dichotomy

The validity of defining Schizoaffective Disorder as a category that is distinct from Mood Disorders and Schizophrenia has been questioned. Six different classes of psychotic disorders were demonstrated based on a latent cluster analysis (Kendler et al., 1998), including Schizophrenia, Major Depression, Schizophreniform Disorder, Bipolar-Schizomania, Schizodepression and Hebephrenia. Also against the Kraepelinian dichotomy, the Wernicke-Kleist-Leonhard school proposed three major groupings of psychotic syndromes, including cycloid psychosis (phasic; favorable outcome), unsystematic Schizophrenia (phasic; less favorable outcome) and systematic Schizophrenia (chronic; poor outcome) (Jabs et al., 2002). An approach that assumed a medical model of illnesses, defined by mechanisms and drug response, further identified melancholia and catatonia as distinct diagnostic categories (Fink and Taylor, 2008).

The validity of Schizoaffective Disorder has been well reviewed (see Maier, 2006; Potash, 2006; Cheniaux et al., 2008; Malhi et al., 2008). A prominent issue in these reviews is whether there is a better course and prognosis in Schizoaffective Disorder than in Schizophrenia (Harrow et al., 2000), and a more impaired outcome for Schizoaffective Disorder compared to Bipolar Disorder (Strakowski et al., 1999). One longitudinal 15 year follow-up of Schizoaffective Disorder cases (Jager et al., 2004) demonstrated that cases had a similar prognosis as those with Affective Disorders, even though the clinical picture at the time of first hospitalization for Schizoaffective Disorders was distinguishable from both Schizophrenia and Mood Disorders. Other approaches to the validity of Schizoaffective Disorder include family and genetic studies. Family studies show increased risks for Schizoaffective Disorder in the relatives of both Bipolar Disorder and Schizophrenia probands, consistent with Schizoaffective Disorder being a subtype of either disorder or a condition that is intermediate to both conditions (Laursen et al., 2005). There is a strong body of evidence from family (Lichtenstein et al., 2009), twin (Cardno et al., 2002) and molecular genetic studies

(International Schizophrenia Consortium et al., 2009; Moskvinina et al., 2009; Craddock et al., 2010; Schizophrenia Psychiatric Genome-Wide Association Study (GWAS) Consortium, 2011; Visscher et al., 2012) demonstrating significant genetic overlap between Schizophrenia and Bipolar Disorder. Genetic studies do not support the view that Schizophrenia, psychotic Mood Disorders and Schizoaffective Disorder are distinct etiological entities, but rather the evidence suggests the existence of common inherited vulnerability that increases the risks for all these syndromes. Some susceptibility pathways may be specific for Schizophrenia, others for Bipolar Disorder, and yet other mechanisms and genes may confer risk for mixed schizophrenic and affective psychoses (Hamshere et al., 2005; Craddock et al., 2010), but there is no support from genetics for the view that these are distinct disorders with distinct etiologies and pathogenesis. Laboratory studies of putative endophenotypes, brain imaging studies, and post mortem studies shed little additional light on the validity of the Schizoaffective Disorder diagnosis, as most studies combine subjects with different chronic psychoses in comparison to healthy subjects.

Thus, no valid biomarkers or laboratory measures have emerged to distinguish between affective psychosis and Schizophrenia. To the contrary, the idea of a dichotomy between these types of conditions has proven naïve. The field must continue to rely solely on presenting symptoms and signs to categorize psychiatric diseases for the time being and the admixture of “schizophrenic” and affective symptoms is a feature of many, or even most, cases with severe mental illness. As Pope and Lipinski (1978) surmised decades ago, most presenting symptoms of psychotic phenomenology have little validity in determining diagnosis, prognosis, or treatment response in psychosis. At best we can work to reliably categorize these illness features into affective psychosis, Schizophrenia and Schizoaffective Disorder and the further operationalization of criteria in the DSM-5 can contribute to this process. This is not to deny that there might be a clinical utility able to classify cases of chronic psychosis according to the relative contributions of affective and non-affective symptoms, but it does suggest that ultimately a more nuanced and possibly dimensional approach will be required.

4. DSM-5 Schizoaffective Disorder

One option for the DSM-5 would have been to remove the Schizoaffective Disorder category and to add mood symptoms as a dimension to Schizophrenia and Schizophreniform Disorder or to define a single category for the co-occurrence of psychosis and mood symptoms. This option was extensively debated but ultimately deemed to be premature in the absence of sufficient clinical and theoretical validating data justifying such a radical reconceptualization. Additionally, there appeared to be no practical way to introduce affect dimensions covering the entire course of illness, that would capture the current concept of periods of psychosis related and un-related to Mood Episodes. Rather, the DSM-5 Schizoaffective Disorder classification (Table 3) was aimed at having enhanced reliability and introducing symptom dimensions to provide data for future conceptualizations of chronic psychotic conditions (see Barch et al., this volume). The philosophy for the DSM-5 permits an overlapping consideration of both dichotomy and unitary models. It is anticipated that it will produce better data to define subgroups that have more similar pathophysiology and phenomenology for future diagnostic advances. Other conceptual shifts and clarifications for the DSM-5 approach to Schizoaffective Disorder are described below.

5. Mood symptoms in DSM-5 meet Mood Episode criteria for Depression, mania or Mixed States

In DSM-5, criterion C for Schizoaffective Disorder is more stringently defined than in earlier editions of the manual. Mood symptoms sufficient to meet criteria for a Mood Episode must be present for at least half of the total duration of the illness from the onset of the

Table 3
DSM-5 criteria.

- A. An uninterrupted period of illness during which there is a Major Mood Episode (Major Depressive or Manic) concurrent with Criterion A of Schizophrenia.
Note: The Major Depressive Episode must include Criterion A1.
- B. Depressed mood, Delusions or hallucinations for 2 or more weeks in the absence of a Major Mood Episode (Depressive or Manic) during the lifetime duration of the illness.
- C. Symptoms that meet criteria for a Major Mood Episode are present for the majority of the total duration of the active and residual portions of the illness.
- D. The disturbance is not attributable to the effects of a substance or another medical condition.

Specify whether:

Bipolar Type: This subtype applies if a Manic Episode is part of the presentation. Major Depressive Episodes may also occur.

Depressive Type: This subtype applies if only Major Depressive Episodes are part of the presentation.

With catatonia: This specifier, which applies to both 295.70 (F25.1) Schizoaffective Disorder, with prominent depressive symptoms, and 295.70 (F25.0) Schizoaffective Disorder, with prominent Manic Symptoms, may be used to specify a current episode with at least three of the following: catalepsy, waxy flexibility, stupor, agitation, mutism, negativism, posturing, mannerisms, stereotypies, grimacing, echolalia, and echopraxia.

first psychosis including prodromal and residual phases to meet the criteria for Schizoaffective Disorder. Affective symptoms that do not meet the full episode criteria for any mood syndrome will not constitute the mood component of Schizoaffective Disorder in the DSM-5, even if these require mood-altering interventions. However, the clinician may count periods of the illness that require treatment with antidepressant and/or mood stabilizing medication (defined by failure to discontinue treatment) towards the period with prominent mood symptoms. When mood symptoms superimposed on Schizophrenia are clinically significant but do not meet criterion C, an additional diagnosis of Depressive Disorder Not Otherwise Specified or Bipolar Disorder Not Otherwise Specified can be given.

6. DSM-5 Schizoaffective Disorder considers the entire illness course

In DSM-5, Schizoaffective Disorder is a lifetime diagnosis that considers the time from the onset of the psychosis up to the current episode, rather than only defining a single episode with co-morbid psychotic and mood syndromes. This change acknowledges the frequent evolution of phenomenology over the illness course. For example, the successful treatment of a Mood Disorder may result in a clinical picture that comes to be dominated by refractory psychotic symptoms, producing a picture of Schizophrenia. Likewise untreated anxiety, severe stress or substance abuse may be a driving force in worsening psychosis and a traumatic brain injury, post traumatic stress disorder (PTSD) or demoralization may be associated with more Mood Episodes. It should not be surprising that a clinical picture can change over time, independent of the inherent vulnerability. The DSM-5 may support treatment strategies that address specific domains of symptom pathology present in each individual patient and these may be better captured in the eight dimensions suggested for Section 3 than in the diagnostic class *per se* (see Barch et al., this volume).

7. Conclusions

The diagnosis Schizoaffective Disorder remains controversial because of poor reliability, low stability, weak validity, and excessive application in practice. However, the DSM-5 remains in the tradition of Kraepelin and continues to separate Mood Disorder from Schizophrenia Spectrum Disorders and recognizes the clinical utility in maintaining a diagnosis that is important to clinicians addressing the middle ground. The modest changes put in place with DSM-5 may result in better reliability, the life course concept may enhance stability, and the use of

depression and mania dimensions may help clinicians assess these pathologies regardless of diagnostic class.

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