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EDITORIAL

Catatonia in the *DSM*—Shall We Move or Not?

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The current issue of *Schizophrenia Bulletin* includes 2 opinion pieces on the nosology of catatonia and 1 on the treatment of catatonia. Fink and colleagues[1] argue that the original concept of catatonia, introduced by Karl Kahlbaum in 1874, was inappropriately subsumed under dementia praecox and, subsequently, schizophrenia. They ask for a divorce of catatonia from schizophrenia and the recognition of catatonia as an independent diagnostic class in the next edition of the *Diagnostic and Statistical Manual of Mental Disorder* (*DSM*). Ungvari and colleagues[2] argue that chronically abnormal psychomotor behavior is a core feature of schizophrenia. They ask for clarification of which psychomotor symptoms are part and parcel of psychotic and mood disorders and consider a divorce of catatonia from schizophrenia premature. Rosebush and Mazurek[3] summarize treatment observations, which provide support for both perspectives: catatonic symptoms uniquely respond to treatment with benzodiazepines and electroconvulsive therapy (ECT) (supporting Fink et al), but catatonic patients with schizophrenia do not derive as much benefit as patients with an affective disorder (supporting Ungvari et al).

The Nosology of Catatonia in the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (Text Revision)*

The diagnosis catatonia appears in several sections of the current edition of the *DSM*. First, catatonia due to a general medical condition (code 293.89) is listed as a *distinct entity* in the section on medical conditions. Second, the catatonia *subtype* of schizophrenia (code 295.20) is one of the original Kraepelinian forms of schizophrenia and has been listed as a subtype of schizophrenia in the *DSM* since its first edition in 1952. Third, catatonia is an *episode specifier* for depressive disorder (single episode and recurrent) and bipolar disorder (depressed, manic, and mixed) but without separate diagnostic codes. Fourth, the diagnosis of neuroleptic malignant syndrome, which some consider a form of malignant catatonia, is listed separately as a *medication-induced movement disorder* (code 333.92).

This brief summary shows that the *DSM* recognizes catatonia as a distinct diagnostic category (catatonia due to organic mental disorder), a subtype of a major diagnostic entity (schizophrenia), as an episode specifier of 2 other diagnostic classes (major depression and bipolar disorder) and as an adverse effect of a treatment (neuroleptic malignant syndrome). The current *DSM* continues Kraepelin's preference to associate catatonia primarily with schizophrenia: *Grossly disorganized or catatonic behavior* (*Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision* [*DSM-IV-TR*][(p312)]) is one of the 5 characteristic symptoms that constitute diagnostic criterion A of schizophrenia, and *catatonic schizophrenia* is 1 of the 4 subtypes of schizophrenia (*DSM-IV-TR*).[4(p315)] In contrast, abnormal psychomotor behavior is not a prominent diagnostic criterion for any affective disorder, and there are no catatonic subtypes of any diagnostic class other than schizophrenia.

Do we need to change the nosology of catatonia in the next edition of the *DSM*? It turns out that this question is not new. The *DSM-IV* work group debated a change in the classification of catatonia, primarily in response to an argument put forth by Max Fink, which is included in the *DSM-IV* sourcebook.[5] The authors of the *DSM-IV* ultimately decided to (*a*) codify catatonia in the medical setting (code 293.89) and (*b*) add specifiers to capture catatonic features in mood disorder patients.

Reasons to Consider a Change

There are, in our reading of the current literature, 3 compelling reasons to change the classification of catatonia in the next edition of the *DSM*.

First, catatonia is often not recognized.[6] The current teaching of the mental status exam de-emphasizes psychomotor behavior, often to the degree that a formal write-up does not include it. Mental checklists (such as SIGECAPS for depression and DIGFAST for mania) or rating scales (such as Hamilton Depression Rating

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Scale for depression or Young Mania Rating Scale for mania) are firmly established in clinical practice today. However, they are rarely used to assess a patient for catatonia, although such instruments do exist.[7–9] A more prominent position of catatonia in the text of the *DSM* could pave the way for better recognition of catatonic features and the diagnosis of the syndrome.

Second, a better recognition of catatonia would facilitate proper treatment, which often requires early intervention with benzodiazepines and ECT. As described by Rosebush et al[3], benzodiazepines may be particularly effective for the akinetic state in the context of affective disorders and less so for schizophrenia. For example, a randomized controlled treatment trial of 18 patients with chronic schizophrenia who displayed enduring catatonic features failed to document the efficacy of benzodiazepines.[10] In some cases of catatonia, the standard treatment of psychotic behavior with an antipsychotic drug may be contraindicated and can lead to significant worsening of the patient. However, the important issue of whether novel antipsychotics with less potent dopamine D2 receptor blockade are better tolerated or effective for catatonia is not settled.

Third, a better recognition of catatonia as a diagnostic entity would catalyze the dormant research of the neural and genetic mechanisms of catatonia.[11–13]

Are these reasons sufficient to remove catatonia from all sections in the current *DSM* and replace it with a new diagnostic class? The crucial step is a divorce of catatonia from schizophrenia. As divorces go, this is a nasty one.

Divorcing Catatonia from Schizophrenia

Over 50% of patients with prominent catatonic features do not have schizophrenia.[14] This is true when applying the original catatonia criteria proposed by Kahlbaum[15] or more modern rating scales and diagnostic systems, such as the one pioneered by the Wernicke-Kleist-Leonhard school of psychopathology.[14] At the same time, 15%–30% of patients diagnosed with schizophrenia do present with prominent catatonic features.[16,17] This is the simple truth about catatonia: not all is schizophrenia, but some is.

The epidemiology of catatonia is poorly understood, and a potential source of bias, in the accurate assessment of prevalence rates, is the selective recruitment of patients. Hospitalized patients are more likely to present with acute and prominent psychomotor abnormalities (eg, mutism and stupor), often seen in patients with medical and neurological conditions associated with catatonia. In contrast, outpatients are more likely to present with chronic and less prominent psychomotor abnormalities (eg, mannerisms, stereotypies, bizarre postures), closer to the Kraepelinian description and consistent with a diagnosis of schizophrenia.

Grossly disorganized or catatonic behavior is currently 1 of the 5 characteristic symptoms that constitute criterion A for the diagnostic classes schizophrenia and schizoaffective disorder. Removing catatonic symptoms as a diagnostic feature of schizophrenia from the *DSM* would most likely not affect the prevalence of schizophrenia because the diagnosis of schizophrenia is rarely contingent on the presence of disorganized or catatonic behavior. However, it would affect the classic phenotype of schizophrenia.

A review of the original concepts proposed by Kraepelin and Bleuler reveals that catatonic symptoms were at the core of dementia praecox and schizophrenia.

Kraepelin viewed avolition (''weakening of those emotional activities which permanently form the mainsprings of volition'') as the core deficit of schizophrenia. In contrast to our current concept of avolition as a negative symptom,[18] Kraepelin viewed several features of catatonia, including mutism, stupor, automatic obedience, stereotypy, mannerisms, and negativism, as signs of avolition (see Kraepelin[19(vol 1, chap 2)]).

Bleuler conceptualized schizophrenia differently and lists 4 core deficits: Autism, Abnormal Affect, Abnormal Association, and Ambivalence. (Bleuler's 4 A's). The ambivalence construct shares many features with catatonia (and ambivalence is frequently listed as a feature of catatonia). Abnormal psychomotor behavior is, thus, a key domain of schizophrenia's psychopathology,[20] and catatonia is an extreme expression of this dimension. Even with a removal of the word ''catatonic'' from both the diagnostic criteria and the subtypes of schizophrenia, it is likely that increased, decreased, or abnormal psychomotor behavior will remain a part of the schizophrenia concept in the future. To make the divorce of catatonia from schizophrenia even more complicated, a small but sizable group of schizophrenia patients have prominent catatonic symptoms. If catatonia is reclassified as a separate diagnostic class, will those patients then carry 2 diagnoses, ie, schizophrenia and catatonia?

Should We Move on Catatonia?

It appears problematic for catatonia to become a completely independent diagnostic class, in view of the fact that it is not a single condition but an expression of several different disorders and because of the particular difficulties it would create for the nosology of schizophrenia. It would seem important that there be uniformity in how catatonia is treated across different disorders. It may be justified to give catatonia more prominence in the next edition of the *DSM*, by consolidating catatonia across different diagnoses into 1 section. If such a consolidation does occur, it should likely be in the section on *Psychotic Disorders* because catatonia is a dimension of psychosis.[21]

One proposal, currently being considered by the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*, Work Group on Schizophrenia and Related Disorders, is to (*a*) replace *catatonic behavior* with *abnormal psychomotor behavior* as a diagnostic criterion for schizophrenia and (b) use a specifier to diagnose catatonia in 3 different patients groups: schizophrenia, mood disorder, and general medical condition. Such a change would recognize that catatonia is not primarily associated with schizophrenia, while also acknowledging that a sizeable number of schizophrenia cases present with catatonic symptoms. The next edition of the *DSM* needs to overcome Kraepelin's preference to link catatonia with schizophrenia only. It is clear now that this preference is not supported by data and that the better recognition of catatonia is sorely needed.

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