Diagnostic Criteria for Schizophrenia and Related Disorders: Options for DSM-IV

by Michael Flaum and Nancy C. Andreasen

Abstract

Five alternative sets of diagnostic criteria for schizophrenia and related psychotic disorders are presented in the appendix following this report. They include the DSM-III-R criteria, the most recent version of the ICD-10 research criteria, and three new sets that have been proposed as options for DSM-IV. A multicenter field trial is currently gathering data that will allow researchers to compare the performance characteristics of each set of criteria, including dimensions such as classification rates, reliability, and user-friendliness. In this report, the rationale behind the proposed modifications and the methods and goals of the field trials are summarized.

The development of DSM-IV has been controversial. Critics suggest that frequent changes in diagnostic “fashions” are counterproductive to both clinical and research activities (Zimmerman 1988). Proponents of DSM-IV argue that a revision is necessary at this time in order to maintain optimal consonance with the newly proposed revision of The International Classification of Diseases (ICD-10; World Health Organization 1989). A multistage process has been established in order to ensure that proposed modifications are supported by empirical evidence (Frances et al. 1989).

In the introduction to the special section in this issue, Dr. Andreasen summarized the three phases that have thus far been undertaken by the workgroup responsible for the development of the schizophrenia and related psychotic disorders section of DSM-IV. The first phase entailed the identification of critical issues: that is, areas of the DSM-III-R criteria (American Psychiatric Association [APA] 1987) potentially needing modification, either because of perceived limitations in their clinical or research applications, or because of marked discordance with the proposed ICD-10 criteria. Once these issues had been identified and prioritized, literature reviews were carried out by workgroup members and advisers (several of which are presented in this issue). The second phase of this process entailed the exploration of possible criteria modifications through analyses of preexisting unpublished data bases (herein referred to as the MacArthur analyses, as this part of the project was partially funded by a grant from the MacArthur Foundation). The third phase, the evaluation of alternative criteria sets in a multicenter field trial, is currently in progress, and is the subject of this report.

The process of applying the “scientific method” to the development of psychiatric nosology has recently been articulated in an essay by Kendler (1990). He suggested (p. 970) that since the “essence of the scientific method lies in hypothesis generation and hypothesis testing . . . the critical initial step for a scientific nosology is to form empirically testable hypotheses,” such as the evaluation of two or more competing sets of diagnostic criteria. This model underlies the current efforts of the schizophrenia workgroup. The workgroup has generated three complete sets of diagnostic criteria for schizophrenia and related disorders, each informed by the literature reviews and subsequent analyses, and intended to ad-
dress the issues that had been identified at the onset of the process. These three criteria sets, herein referred to as options 1, 2, and 3 (numbered in order of the degree to which they diverge from *DSM-III-R*) are now undergoing field testing in order to compare them to each other and to *DSM-III-R* and ICD-10 on a variety of dimensions, including reliability, classification rates, user-friendliness, and external validity. Each set of criteria is presented in full in the appendix of this report, along with the corresponding sections of the *DSM-III-R* and ICD-10 criteria. The reader will note that there are both substantial and subtle differences in the form and content of these five sets of criteria. The purpose of this report is to highlight these differences systematically and to summarize the rationale behind the proposed modifications reflected in each of the options.

It is important to recognize that none of these options has been endorsed by the workgroup or by APA. Rather, they are working models that may now be subjected to empirical analyses in field trials. The final stage of the process will be to incorporate the experience and results gathered through the field trials with the empirical evidence provided by the literature reviews and MacArthur analyses and to apply the information toward the generation of the final proposal for *DSM-IV*. Thus, it is likely that the final proposal will reflect a synthesis of these options rather than a choice of one.

**Schizophrenia**

**Criterion A: Characteristic Symptoms.** At first glance through the appendix, it appears that there are substantial differences in the A criterion according to each of the five sets. Yet, table 1 illustrates that when reduced to the basic symptom algorithms, the similarities far outweigh the differences. The remaining differences reflect many of the issues that have been examined in the literature reviews and require further evaluation in the field trials. These differences are described below.

**Duration.** One of the potentially important differences between the *DSM-III-R* and ICD-10 criteria for schizophrenia is that *DSM-III-R* requires that the A criterion symptoms be present for a minimum of 1 week ("unless successfully treated"), but ICD-10 requires that they be present "most of the time . . . for at least one month." The first question this raises is whether such an increase in the duration threshold of "active" symptoms further narrows the boundaries of schizophrenia. This issue will be directly addressed in the field trials by determining the percentage of patients diagnosed as schizophrenic and schizophreniform according to *DSM-III-R* who would be excluded by the 1-month threshold of A criterion symptoms. Those so excluded will then be compared with those who meet *DSM-III-R* criteria for schizophrenia or schizophreniform disorder on a number of variables, including antecedent validity such as level of premorbid functioning, presence and duration of prodromal symptoms, and age of onset, as well as concurrent validity such as the presence of prominent mood symptoms and the severity of psychotic symptoms. A pattern of group differences among these variables would suggest that the excluded group represents *DSM-III-R* false positive schizophrenics, and would support the longer duration threshold.

Another question involves the extent to which the reliability of assessing these symptoms may be compromised by extending the duration threshold. Is it reasonable to expect that the presence and severity of observational symptoms such as thought disorder can be meaningfully assessed over a 1-month period? The field trials will allow for a quantification of the reliability of assessing the duration of each of the symptoms suggested for inclusion in any of the A criteria, and will compare the overall diagnostic reliability of criteria sets that employ a 1-week or a 1-month threshold.

**The positive/negative dimension.** Flat affect is the only negative symptom included in the A criterion of *DSM-III-R*. Several other negative symptoms are delineated in ICD-10 (e.g., avolition and poverty of speech), but all are incorporated into a single A criterion item. The literature review on the characteristic symptoms of schizophrenia (presented in this issue by Andreasen and Flaum 1991) demonstrated both the historical precedence and the empirical evidence in support of an increased emphasis on negative symptoms in the *DSM-IV* criteria. As is seen in table 1, each of the proposed options for *DSM-IV* incorporates an increased emphasis on negative symptoms.

Option 1, reflecting the most conservative approach, introduces the positive-negative dichotomy, but does so for descriptive value only, in a manner that does not significantly alter the symptom algorithm of *DSM-III-R*. The only substantial change in this algorithm is that the negative symptom of avolition is substituted for inappropriate affect. The second option replaces the symptom of inappropriate affect with a different negative symptom, pov-
### Table 1. The A criterion for schizophrenia: Characteristic symptoms in five different criteria sets

<table>
<thead>
<tr>
<th>DSM-III-R</th>
<th>DSM-IV option 1</th>
<th>DSM-IV option 2</th>
<th>DSM-IV option 3</th>
<th>ICD-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ 1 week (unless successfully treated) of:</td>
<td>≥ 1 week of:</td>
<td>≥ 1 month of:</td>
<td>≥ 1 month of:</td>
<td>≥ 1 month of:</td>
</tr>
<tr>
<td>At least 2:</td>
<td>At least 2 (at least 1 positive):</td>
<td>At least 2:</td>
<td>At least 2:</td>
<td>At least 2:</td>
</tr>
<tr>
<td>Delusions</td>
<td>Delusions</td>
<td>Delusions</td>
<td>Delusions</td>
<td>Hallucinations — frequent or with any delusions</td>
</tr>
<tr>
<td>Prominent hallucinations</td>
<td>Prominent hallucinations</td>
<td>Hallucinations</td>
<td>Hallucinations</td>
<td>Disorganized speech</td>
</tr>
<tr>
<td>Incoherence or marked loosening of associations</td>
<td>Disorganized speech</td>
<td>Disorganized/bizarre behavior</td>
<td>Disorganized</td>
<td>Catatonic behavior</td>
</tr>
<tr>
<td>Catatonic behavior</td>
<td>Catatonic behavior</td>
<td>(≥ 2 of: Peculiar behavior)</td>
<td>behavior or inappropriate affect</td>
<td>Negative symptoms, e.g., Marked apathy or</td>
</tr>
<tr>
<td>Flat or inappropriate affect</td>
<td>Flat affect</td>
<td>Inappropriate affect</td>
<td>affect</td>
<td>Poverty of speech or</td>
</tr>
<tr>
<td></td>
<td>Marked avolition</td>
<td>Poor hygiene</td>
<td>Flat affect</td>
<td>Flat affect</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Marked social isolation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Flat affect or poverty of speech</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td>OR</td>
<td>OR</td>
<td>OR</td>
<td>OR</td>
</tr>
<tr>
<td>Bizarre delusions “totally implausible”</td>
<td>Bizarre delusions “totally implausible”</td>
<td>Prominent delusions “frequent and severe”</td>
<td>Prominent delusions</td>
<td>Bizarre delusions Implausible (many specific types of delusions are delineated)</td>
</tr>
<tr>
<td>OR</td>
<td>OR</td>
<td>OR</td>
<td>OR</td>
<td>OR</td>
</tr>
<tr>
<td>Prominent hallucinations</td>
<td>Prominent hallucinations</td>
<td>Prominent hallucinations</td>
<td>Prominent</td>
<td>Prominent hallucinations</td>
</tr>
<tr>
<td>Not related to mood or Voices commenting or</td>
<td>Not related to mood or Voices commenting or</td>
<td>“frequent and severe”</td>
<td>hallucinations</td>
<td>Voices commenting or</td>
</tr>
<tr>
<td>Voices conversing</td>
<td>Voices conversing</td>
<td></td>
<td></td>
<td>Voices conversing or</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Voices emanating from body part</td>
</tr>
</tbody>
</table>

* A criteria for schizophrenic spectrum disorder.
erty of speech, and symptoms are not dichotomized according to the positive-negative dimension. The third option incorporates negative symptoms most prominently, both by dichotomizing and by including equal numbers of positive and negative symptoms. However, positive symptoms retain a greater weighting in that the A criterion cannot be met without at least one of the positive symptoms being present. The decision about how and which negative symptoms to incorporate into the ultimate DSM-IV proposal will be informed by quantifying the reliability, specificity, and base rates of these symptoms in the field trials.

Catatonic behavior. Should catatonia be a part of the schizophrenia criteria, either as one of the characteristic symptoms or as a subtype? The literature pertinent to this question is controversial, but clearly indicates that catatonia is not specific to schizophrenia and occurs in association with a wide variety of medical and psychiatric disorders (Lohr and Wisniewski 1987). Yet there is also no doubt that a small minority of schizophrenic patients have prominent and enduring catatonic symptoms, and its exclusion from the schizophrenia nosology would run counter to a substantial historical tradition. Furthermore, ICD-10 retains catatonia, both in the A criterion and among the subtypes of schizophrenia.

In an effort to examine these issues empirically, three alternative approaches are reflected in the options for evaluation in the field trials. Option 1 is essentially the same approach as DSM-III-R (although the description of catatonia is more clearly stipulated in the A criterion). In option 2, catatonic behavior is eliminated from the A criterion, but the subtype is retained. This approach addresses the nonspecificity of catatonic behavior but identifies patients with prominent catatonic symptoms who also meet the criteria for schizophrenia. Option 3 eliminates catatonia from both the A criterion and from the subtyping schema and proposes that criteria for a catatonic syndrome be included in an “other disorders” category of DSM-IV. Thus, catatonia could be diagnosed along with schizophrenia, major depression, or any other disorder with which it occurs.

Formal thought disorder. While most would agree that some form of thought disorder is common in schizophrenia, the MacArthur analyses revealed that the base rates of “incoherence and marked loosening of associations” were extremely variable across several large samples of schizophrenics. Frequencies of these symptoms were as low as 5 and 15 percent, respectively, in one large sample (Andreasen and Flaum 1991, this issue). This finding may reflect differences in interpretation of the terms, and it also suggests poor reliability. Each of the new options has replaced the term “incoherence or marked loosening of associations” with the broader and more generic term “disorganized speech,” and has not included a severity qualifier. The field trials will examine the reliability, base rates, and specificity of several different varieties of thought disorder, such as tangentiality, derailment, illogicality, neologisms, etc., and these results will inform the final terminology to be used in the DSM-IV criteria.

“Bizarre” delusions and the emphasis on Schneiderian symptoms. DSM-III-R assigns increased diagnostic weighting to specific types of delusions and hallucinations. The presence of prominent (frequent and persistent) hallucinations of the Schneiderian first-rank type (i.e., voices commenting or conversing) is enough in itself to satisfy the A criterion of schizophrenia. For delusions, the critical dimension is the quality of bizarreness: that is, whether the content appears to be “totally implausible” and not culturally sanctioned. The intent of the criteria is to include both the Schneiderian first-rank types of delusions (e.g., thought insertion, withdrawal, etc.), as well as the broader Jasperian concept of “un-understandability” (Kendler et al. 1989).

Although table 1 demonstrates that the weighting assigned to these types of symptoms in ICD-10 is similar to that in DSM-III-R, a closer inspection of the ICD criteria reveals that Schneiderian first-rank symptoms represent an even more prominent part of the concept, in that a large number of these symptoms are specifically delineated. Yet, the literature reviews and MacArthur analyses offered little support for the increased weighting of these symptoms in the diagnosis of schizophrenia (Andreasen and Flaum 1991, this issue). The notion that these sympotms are pathognomonic for schizophrenia has been disputed by several studies that demonstrate their appearance in other psychotic disorders. The base rates of first-rank symptoms have been found to be relatively low and widely variable across studies, suggesting problems with their reliability and descriptive value. Further, the redundancy and complexity of the criteria resulting from the increased weighting assigned to these specific positive symptoms may be avoidable without significantly affecting classification rates. For example, a recent study found that out of a large sample of DSM-III-R schizophrenic patients, less than 0.1 percent satisfied the A
criterion based on the presence of bizarre delusions alone (D. Goldman et al., unpublished manuscript).

The reliability of distinguishing between bizarre and nonbizarre delusions becomes particularly important in DSM-III-R, not only because of the prominence given the distinction in the A criterion, but also because of its pivotal role in the differential diagnosis between schizophrenia and delusional disorder. The DSM-IV workgroup conducted two independent studies of this issue, with conflicting results; one demonstrated poor reliability and the other suggested adequate reliability. The study that showed poor reliability suggested that some interpreted the term bizarre delusions synonymously with Schneiderian first-rank delusions, whereas others interpreted it more broadly (Flaum et al., in press). Option 1 addresses this problem by providing two new examples, one of which is classically Schneiderian (thoughts taken out of one's mind and broadcast over the radio), and the other of which is clearly non-Schneiderian (the belief that one's sex organs are being changed to that of the opposite sex). The increased weighting of Schneiderian types of hallucinations remains unchanged according to option 1.

Option 2 retains the increased weighting on delusions and hallucinations, but replaces the DSM-III-R qualifiers with the dimensions of frequency and severity. Option 3 diverges further by eliminating the increased weighting of these positive symptoms altogether. Other dimensions of delusions may prove to be more reliable and valid in terms of differentiating schizophrenia from delusional disorder, and several of these will be explored in the field trials. These dimensions include the degree of conviction, extension, systematization, and mood-congruence (Kendler et al. 1983).

Criterion B: Deterioration in Functioning. The DSM-III-R B criterion for schizophrenia require a marked deterioration in functioning in areas such as work, social relations, or self-care, whereas the ICD-10 criteria include no corresponding concept. The extent to which this incongruity will affect classification rates will be quantified in the field trials. Options 1 and 2 have retained this criterion with only minor wording changes so as to specify that impairment is required in only “one or more” of the major areas such as work, social relations, or self-care. The revised wording also indicates that, in early onset cases, the impairment can be in social as well as in occupational functioning. Option 3, on the other hand, eliminates the deterioration criterion altogether as in ICD-10.

Criterion C: Mood Disorders Exclusion. The DSM-III-R criteria for schizophrenia specify that if a mood syndrome has been present, the total duration must be brief relative to the duration of A criterion symptoms. ICD-10 diverges somewhat from the DSM-III-R concept in that the differential diagnosis between schizophrenia and schizoaffective or mood disorders turns on the determination of which symptom appeared first: If the psychotic symptoms emerged subsequent to the mood syndrome, schizophrenia is ruled out. This feature was not incorporated into any of the options, as the literature review conducted by the mood disorders workgroup did not find any support for its validity. Option 1 introduces a minor modification by specifying that in major depressive syndromes, a depressed mood, rather than anhedonia alone, is required, as the latter is extremely common in schizophrenia. Options 2 and 3 are unchanged in intent from DSM-III-R but are worded slightly differently in order to maintain internal consistency within each set of criteria.

Criterion D: Overall Duration and Prodromal-Residual Symptoms. DSM-III-R requires a 6-month duration, including at least 1 week of A criterion symptoms with or without a prodromal or residual phase. The prodromal or residual phase is determined by the presence of two or more items from a list of nine schizotypal and negative symptoms. ICD-10 has no specified duration requirement other than the 1-month threshold of A criterion symptoms; therefore, it has no need for the prodromal-residual criterion. Despite the goal of optimizing consonance with ICD-10, the literature reviews offered clear support for the 6-month duration threshold as a predictor of a schizophrenic outcome, and therefore each of the proposed options for DSM-IV retained this duration threshold. (It should be noted that a recent study indicated that a 3-month duration may be an equally good predictor (Tsuang 1990), but the 6-month threshold was retained to minimize discordance with both ICD-10 and DSM-III-R.)

In terms of the prodromal-residual concept, the literature reviews suggested poor reliability, excessive complexity, and low specificity for many of these symptoms. One recent study found that only four of the nine DSM-III-R prodromal-residual symptoms performed adequately in terms of diagnostic efficiency and discriminant capacity (Heinssen and McGlashan, unpublished manuscript). In option 2, these four symptoms...
Although as of now the exact wording of DSM-III-R, changed from that of DSM-III, the "organic body dichotomy. The workgroup recognized as problematic in that it provides only minimal changes to the final proposal. The intent of each of the three major conclusions from this review can be summarized as follows (T.H. McGlashan, personal communication): First, there is a substantial amount of empirical evidence supporting the validity of the paranoid versus nonparanoid distinction. Second, there is limited support for the validity of the remainder of the DSM-III-R subtypes. Third, there is inadequate empirical evidence in support of alternative subtyping approaches.

In response to these conclusions, option 1 proposes no changes in the subtyping scheme, and option 2 proposes only minimal changes. In option 2, the criteria for the disorganized subtype are made slightly more stringent by requiring the prominence of thought disorder, flat or inappropriate affect, and disorganized behavior. In contrast, DSM-III-R requires, in addition to the prominence of thought disorder, only flat or inappropriate affect or disorganized behavior. It is suggested that such a narrowing will further enhance the distinction between the disorganized and undifferentiated subtypes. The wording of the criteria for the catatonic and residual subtypes has also been slightly modified in option 2, but the intent is unchanged from that of DSM-III-R.

Despite the lack of empirical evidence supporting alternative approaches, it is clear that the classical subtyping schema has been relatively nongenerative in terms of both research and clinical issues. For example, subtyping has had virtually no impact on treatment recommendations, and few, if any, neurobiological measures have demonstrated significant differences among subtypes. It is in response to these findings that option 3 proposes more substantial modifications. Here, a new subtype, the deficit type, is introduced. The deficit type draws heavily from the work of Carpenter et al. (1988), which described schizophrenic patients whose course is dominated by enduring negative symptoms that are not attributable to "secondary" causes of negative symptoms such as positive symptoms, depression, antipsychotic medication, and lack of environmental stimulation. The intent of the disorganized subtype in option 3 remains unchanged from that of DSM-III-R, although the wording has been modified to maintain consistency with the overall criteria set. The paranoid subtype has been more substantially modified, although the basic intent of DSM-III-R is preserved; that is, a type of schizophrenia dominated by systematized delusions and hallucinations, although its intent is the same as that of DSM-III-R. Here, the construct of "schizophrenia spectrum disorder" is introduced. This construct includes the characteristic symptoms and the mood and "organic" exclusion criteria, but does not specify any overall duration. If a patient meets criteria for schizophrenia spectrum disorder for at least 6 months, the diagnosis of schizophrenia is made. If the duration is less than 6 months, a diagnosis of schizophreniform disorder is made. (Note that this term bears no relationship to the schizophrenia spectrum concept of schizophrenia-related disorders in family members of schizophrenic probands.)

Criterion E: "Organic" Disorders Exclusion. The term "organic" is widely recognized as problematic in that it propagates the concept of the mind-body dichotomy. The workgroup assigned to the DSM-III-R "organic mental disorders" section will be making recommendations regarding terminology, and their recommendations will be incorporated into the final proposal. The intent of each of the proposed options remains unchanged from that of DSM-III-R, although as of now the exact wording is somewhat different between them.

Criterion F: Differential Diagnosis With Autistic Disorder. DSM-III-R specifies that if there is a history of autistic disorder, the additional diagnosis of schizophrenia is made only if prominent delusions or hallucinations are also present. Correspondence with the child disorders task force for DSM-IV suggested that: (1) there are few, if any, data to suggest that autistic disorder often presents with symptoms that can give a false impression of schizophrenia; (2) that schizophrenia and autism can and do occur; and (3) that distinguishing between the two syndromes is rarely difficult. This, in addition to the fact that ICD-10 does not specifically exclude autistic disorder in the diagnosis of schizophrenia, prompted the elimination of this criterion from options 2 and 3. Option 1 remains unchanged from that of DSM-III-R.

Schizophrenia Subtypes. The results of the literature review on the subtypes of schizophrenia will be fully presented in a forthcoming issue of the Schizophrenia Bulletin. The three major conclusions from this review can be summarized as follows (T.H. McGlashan, personal communication): First, there is a substantial amount of empirical evidence supporting the validity of the paranoid versus nonparanoid distinction. Second, there is limited support for the validity of the remainder of the DSM-III-R subtypes. Third, there is inadequate empirical evidence in support of alternative subtyping approaches.

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Cinuations related to a single theme, in the absence of prominent disorganized or negative symptoms. The term "paranoid" was felt to be inaccurate and misleading, as no specific delusional or hallucinatory theme is stipulated (as has been the case in DSM-III). Therefore, the paranoid subtype has been redesignated as "positive" in option 3. Finally, option 3 eliminates the residual subtype, the rationale being that the residual subtype of DSM-III-R is more a classification of course than a description of predominant symptoms.

ICD-10 retains the classical subtypes and adds two additional subtypes, simple schizophrenia and postschizophrenic depression. The ICD-10 concept of simple schizophrenia is one of a gradual appearance of prominent negative symptoms in the absence of any positive symptoms, resulting in a dramatic change in personality and a deterioration in functioning over a period of at least 1 year. Although simple schizophrenia is coded in ICD-10 as a subtype of schizophrenia, the criteria specify that the subject must "never have met the criteria for schizophrenia or another psychotic disorder."

There is substantial historical precedence for this concept, and a recent review suggested that there was adequate empirical evidence to support its distinction as a separate disorder as well as its genetic relationship to "core" schizophrenia (Black and Boffeli 1989). The workgroup concluded that criteria should be operationalized to allow for further study and concordance with ICD-10. However, its inclusion as a subtype of schizophrenia or the use of the word schizophrenia in its title would lead to an undesirable broadening of the schizophrenia concept. The workgroup proposed that the category be labeled "simple deteriorative disorder" and categorized under psychotic disorders not otherwise specified. Three alternative criteria have been proposed for evaluation in the field trials, each reflecting ICD-10 simple schizophrenia (see appendix). Finally, ICD-10 includes the category postschizophrenic depression. In a review of this condition, Dr. Siris details the empirical evidence supporting it as a separate disorder as well as the difficulties in its differential diagnosis (Siris 1991, this issue). The workgroup concluded that at least one set of criteria should be operationalized for further study in the field trials, but that the condition should not be categorized as a subtype of schizophrenia until further studies are completed. The criteria are shown in option 2 of the appendix.

Classification of Course. DSM-III-R breaks the course of schizophrenia into five categories: subchronic, chronic, subchronic with acute exacerbation, chronic with acute exacerbation, and in remission. ICD-10's somewhat more ambitious approach divides it into seven categories that attempt to document the degree of episodicity and the level of interepisodic functioning. Options 1 and 2 retain the DSM-III-R schema, whereas option 3 presents a different approach altogether. Information regarding the total duration of illness is sacrificed in place of an effort to describe the predominant symptoms over the previous 6 months, that is, either (1) recent positive symptoms, (2) absence of positive symptoms with ongoing negative symptoms (equivalent to the residual subtype), or (3) absence of both positive and negative symptoms, which is equivalent to remission.

Related Psychotic Disorders

Schizophreniform Disorder. The DSM-III-R criteria for schizophreniform disorder require the presence of characteristic symptoms (A criterion), not attributed to a mood disorder (C criterion) or organic illness (E criterion) for less than 6 months, including prodromal, active, and residual phases. The patient also must not meet the criteria for brief reactive psychosis. The presence or absence of "good prognostic features" is also specified. Good prognostic features include a sudden onset, confusion or perplexity during the height of the psychotic episode, good premorbid adjustment, and the absence of flat affect. Option 1 proposes no changes in the criteria for schizophreniform disorder. Option 2 proposes only minimal changes: It drops the exclusion criteria for brief reactive psychosis for the sake of simplicity since the criteria for brief reactive psychosis exclude schizophreniform disorder. Also the absence of flat affect is dropped from the good prognostic signs since it is not clear from the literature that this symptom in the early phases of schizophrenia predicts poor outcome.

As noted above, option 3 attempts to further simplify the criteria by the use of the term schizophrenia spectrum disorder. Schizophreniform disorder is diagnosed if a patient meets these criteria and has a full remission within 6 months. If the period of observation has been less than 6 months, the diagnosis is considered provisional. In ICD-10, the overall duration of symptoms for the diagnosis of schizophrenia is 1 month; therefore there is no diagnostic category that corresponds to DSM-III-R schizophreniform disorder.
Schizoaffective Disorder. In the DSM-III-R concept of schizoaffective disorder, a mood syndrome and the A criteria of schizophrenia are present simultaneously but there are periods in which psychotic symptoms are in evidence without a mood syndrome. It is further specified that the overall duration of the mood syndrome is not brief relative to the overall duration of psychotic symptoms. This criterion differs to some extent from the ICD-10 concept, which stresses that there is "an approximate balance between the number and severity of schizophrenia and mood symptoms" without specifying anything about temporal overlap. In their review of schizoaffective disorder, the mood disorders workgroup found overall support for the DSM-III-R concept but noted that the literature was difficult to interpret given the various methods that have been used to define this disorder. Therefore, the schizophrenia workgroup felt that a conservative approach was indicated and none of the three options proposes any significant modification of DSM-III-R. As per the recommendation of the mood disorders workgroup, a new "subtype" characterized by the presence of good interepisodic recovery was incorporated into option 1.

Delusional Disorder. In DSM-III-R, the distinction between delusional disorder and schizophrenia turns largely on the dimension of bizarre-ness. As has been stated above, the reliability of this distinction has been questioned, and alternate dimensions (e.g., systematization, conviction, etc.) have been proposed and will be explored in the field trials. Option 1 is unchanged from that of DSM-III-R. Option 2 drops the bizarre-nonbizarre distinction altogether but stipulates that the delusions are usually systematized. Option 3 requires that the delusions be both prominent and well-systematized. Each option indicates that none of the other characteristic symptoms of schizophrenia be prominent and that any other evidence of psychopathology be related to the delusion(s) or their ramifications. Interestingly, ICD-10 excludes some specific delusions (thought echo, insertion, withdrawal, and broadcasting), but allows for other types of delusions that are "culturally inappropriate or implausible." ICD-10 also divides delusional disorder into persistent or acute and transient types and requires a 3-month duration for the former.

Brief Reactive Psychosis. The DSM-III-R criteria for brief reactive psychosis require at least one positive symptom for a maximum of 1 month in the context of emotional turmoil and a recent severe stressor and the absence of prodromal or prominent premorbid schizotypal symptoms. The literature review of this topic suggested that these criteria are probably overly restrictive in two respects: First, it appears that many patients who otherwise fit these criteria do not achieve full remission of psychotic symptoms within 1 month but largely do so within 3 months. Second, schizoid and schizotypal personality types may be common in this disorder.

To investigate these issues in the field trials, option 1 maintains the DSM-III-R criteria with the exception of the schizotypal exclusion, and option 2 eliminates both the prodromal and schizotypal exclusion and extends the maximum duration of psychosis to 3 months. Option 3, once again with a focus on user-friendliness and simplicity, replaces the brief reactive psychosis category with the more generic category of "acute psychotic disorder." This is defined as meeting the schizophrenia-spectrum disorder criteria with the exception of the 1-month duration. A "reactive" subtype is introduced to try to capture patients who would have met DSM-III-R criteria for brief reactive psychosis. In contrast to this model, ICD-10 proposes a rather complex category of acute and transient psychotic disorders with four subtypes that are defined by the prominent symptomatology (see appendix for full criteria). The work-group felt that this category introduced an unnecessary level of complexity in light of the relative rarity of such phenomena.

The Field Trials
What would be the characteristics of the ideal DSM-IV criteria set for schizophrenia and related disorders? First, it would classify patients in a manner not significantly different from both DSM-III-R and ICD-10 so as to preserve continuity with ongoing clinical practice and research studies while optimizing international communication. Second, it would have demonstrably good reliability, both at the level of diagnosis and at the level of the individual signs and symptoms that make up the criteria set. Third, it would be simple enough to remember, yet descriptive enough to capture the core features of each disorder. Fourth, it would define disorders that can be validated according to the methods outlined by Robins and Guze (1970).

These are tall orders. First, simple logic tells us that if A does not equal B, then C cannot equal both A and B. DSM-III-R and ICD-10 have not as yet been compared in terms of how each classifies patients, but it is
very likely that there will be substan-
tial differences in many of the cate-
gories. The primary goal of the field
trials will be to quantify the differ-
ences in classification rates between
DSM-III-R and ICD-10 and to de-
termine the impact of the modifica-
tions proposed in the three options
on these classification rates. Toward
this end, a total of 350 subjects will
be evaluated at seven sites across the
country (50 subjects per site), and
diagnoses will be independently as-
signed according to each of the five
sets of criteria. The percentage of
diagnostic agreement and disagree-
ment between each pair of criteria
sets will be determined.

In terms of reliability, earlier field
trials of DSM-III and DSM-III-R
focused only on the issue of diagno-
sic reliability; that is, the extent to
which two clinicians agree on diag-
nostic assignment when presented
with the same information. The more
ambitious goal of the current field
trial is to quantify reliability at the
level of the individual symptoms, as
well as overall diagnostic reliability.
To do so requires a design that in-
cludes a detailed assessment of the
severity and duration of each indi-
vidual sign and symptom included in
any of the criteria sets. Such data
will be systematically collected for
each subject, according to an instru-
ment that has been specifically de-
signed for the field trials. Forty per-
cent of the total sample will be
examined by two pairs, half in an
interrater design (conjoint interview)
and the other half in a test-retest de-
sign (two raters on consecutive
days).

Determining the core features of a
disorder entails the identification not
only of symptoms that are common,
but also of those that discriminate
the disorder from near neighbors.
The most common symptoms are
often the least specific (e.g., anhedo-
nia, which is highly prevalent in
both schizophrenia and depression).
Thus, the optimal balance between
severity and specificity must be
determined. To do so, the inclusion
criteria for the field trials have been
broadly defined so as to capture sub-
jects within all of the diagnostic cate-
gories that are near neighbors of
schizophrenia (e.g., psychotic mood
disorders, schizotypal personality).
The base rate, sensitivity, and speci-
ficity (with respect to DSM-III-R
criteria) for each symptom included
in each of the criteria sets will be
quantified.

Demonstration of validity is the
ultimate test of a diagnostic criteria,
yet it is the most difficult to achieve
in a study that employs a cross-
sectional evaluation. Antecedent vali-
dators such as age of onset and level
of premorbid functioning will be as-
essed for each subject, and concur-
rent validators, that is, the duration,
severity, and pattern of psychotic
and mood symptoms will be system-
atically evaluated. Neuropsycholo-
gical testing and a variety of neuro-
biological measures (e.g., magnetic
resonance imaging, eye tracking) will
be available for a subset of the sam-
ples. Face validity will be assessed by
comparing the diagnosis assigned by
each criteria set to that of the cli-
nicians’ best judgment, independent of
any one construct. Finally, the field
trial data base will be archived and
sufficiently documented to allow for
the possibility of followup studies.

"User-friendliness" (i.e., criteria
that are easy to learn and remember
and that are easy to employ in clini-
cal and educational settings) is also
an important characteristic that the
field trials will assess. At the conclu-
sion of the data collection compo-
nent of this field-trial project, all
participating raters will complete a
detailed assessment of the overall
user-friendliness of each of the op-
tions. These ratings (as well as writ-
ten comments and other feedback)
will be given careful consideration in
the evaluations and revisions that
will be completed before a final crite-
riona set is selected.

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