Psychiatrists' and Nonpsychiatrist Physicians' Reported Use of the *DSM-IV* Criteria for Major Depressive Disorder

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Objective: Several studies of nonpsychiatrist physicians suggest that there are deficits in the knowledge and application of the diagnostic criteria for major depressive disorder (MDD). This research raises questions about the clinical utility of the MDD criteria. The goal of the present study was to determine psychiatrists' reported use of the *DSM-IV* criteria for MDD to diagnose depression and to compare their use to the use by nonpsychiatrist physicians.

Method: The subjects were 291 psychiatrists and 40 nonpsychiatrist physicians who attended a continuing medical education conference in 2006 or 2007 on the treatment and management of depression. Prior to a lecture, the subjects completed a questionnaire that included a question regarding how frequently the *DSM-IV* diagnostic criteria for MDD are used when diagnosing depression.

Results: Nearly one-quarter of the psychiatrists indicated that they usually did not use the *DSM-IV* MDD criteria when diagnosing depression, and nearly half of the nonpsychiatrist physicians indicated that they rarely used the *DSM-IV* MDD criteria to diagnose depression.

Conclusions: A substantial minority of psychiatrists and the majority of nonpsychiatrist physicians reported that they often do not use the *DSM-IV* MDD criteria when diagnosing depression. These findings raise questions about the clinical utility of the MDD criteria. These results, along with other studies demonstrating problems with recalling the MDD criteria, suggest that clinical utility should be considered in discussions of revising these criteria for *DSM-V*.

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The symptom inclusion criteria for the diagnosis of major depressive disorder (MDD) have remained essentially unchanged during the past 30 years. The 9 symptom criteria for primary affective disorder enumerated by the Washington University group[1] were retained, albeit with slight modification, in the Research Diagnostic Criteria[2]; *Diagnostic and Statistical Manual of Mental Disorders*, Third Edition (*DSM-III*)[3]; and subsequent editions of the *DSM*.[4,5]

Although the MDD criteria have remained stable for more than 3 decades, several studies have identified significant gaps in the knowledge or application of the criteria. Bowers and colleagues[6] interviewed experienced general practitioners in Australia regarding the signs and symptoms of depression looked for when a patient presents for depression. None of the physicians listed more than 6 of the 9 MDD symptom criteria, and only one-third reported more than 3 symptoms. In a large survey of 2,500 Australian general practitioners who were asked to list which symptoms they used to diagnose depression, only one-quarter listed at least 5 MDD criterion symptoms.[7] Even after an educational program, only two-thirds of residents in obstetrics and gynecology indicated that they used the formal diagnostic criteria,[8] though this was significantly higher than the 38% rate prior to the intervention. In a study of third-year internal medicine residents' knowledge of the MDD diagnostic criteria, only 5 of the 9 criteria were reported by more than 50% of the physicians in response to the open-ended question, "What are the symptoms of a major depressive episode enumerated in *DSM-IV*?" and only one-third of the residents listed 5 or more of the 9 MDD symptom criteria.[9] In another study of first-, second-, and third-year medical, psychiatry, and clinical psychology residents, Rapp and Davis[10] found that only 2 of the 9 criteria were listed by more than 50% of the medical residents. The residents in psychiatry and clinical psychology were better able to recall the MDD symptom criteria, though only 5 of the 9 criteria were listed by at least 50% of the psychiatry and psychology residents.

We are aware of only 1 study that examined actual physician behavior in the assessment of MDD criteria. Gerrity and colleagues[11] examined the impact of a depression education program on primary care physicians' knowledge about depression and their behavior toward depressed patients. Two actors presented unannounced in the physicians' practices as standardized patients with MDD. In the control group, representing usual clinical practice, at least 5 criteria for MDD were assessed in only one-third of the patient encounters. In the intervention group, at least 5 criteria were assessed in 70% of the encounters. Thus, the education program significantly increased the likelihood that primary care physicians determined whether patients met the *DSM-IV* MDD symptom criteria, though a significant

minority of physicians still did not do so after the educational program.

These studies suggest that there are deficits in the knowledge and application of the MDD criteria and, thus, raise questions regarding the clinical utility of these criteria. However, most of these studies were of nonpsychiatrist physicians, and many were based on physicians in training. We are not aware of any studies examining experienced psychiatrists' reported use of the *DSM-IV* diagnostic criteria for MDD. If a large percentage of practicing psychiatrists report that they do not regularly use the diagnostic criteria when diagnosing major depression, then this raises serious concerns regarding the clinical utility of these criteria.

METHOD

The subjects were 291 psychiatrists who attended a continuing medical education conference in Wisconsin, New York, California, or Massachusetts in 2006 or 2007. The subjects completed a questionnaire before the first author (M.Z.) delivered a lecture on the treatment of depression. The title of the lecture did not suggest that it would address the topic of diagnosing depression. The conferences were half-day or full-day events with multiple speakers. Forty nonpsychiatrist physicians also attended the lectures and completed the same questionnaire.

The first part of the questionnaire elicited subjects' demographic characteristics (age, sex) and professional background (medical specialty, profession, practice setting, and years in practice). The second part of the questionnaire included 6 questions, the order of which was not randomized. The first question addressed the use of the diagnostic criteria for depression. The question read as follows: "When diagnosing depression, how often do you determine whether patients meet the *DSM-IV* diagnostic criteria for major depressive disorder?" (a) Less than 25% of the time; (b) 26%–50% of the time; (c) 51%–75% of the time; (d) More than 75% of the time. The 5 remaining questions addressed various aspects of the treatment of depression. The protocol was reviewed by the Rhode Island Hospital Institutional Review Board, and because the study did not involve more than minimal risk or disclosure of protected health information, written informed consent was not necessary. This was announced before the respondents were asked to complete the questionnaire.

RESULTS

The majority of the 291 psychiatrists were male (64.1%) and worked in an outpatient setting (94.1%). The mean age of the subjects was 56.2 years (SD = 11.3), and they had been in practice a mean of 22.9 years (SD = 11.9). The psychiatrists were significantly older than the nonpsychiatrist physicians (mean ± SD = 56.2 ± 11.3 years vs 52.1 ± 13.2 years, $t_{322} = 2.1$, $P < .05$).

Table 1. Psychiatrists' and Nonpsychiatrist Physicians' Reported Use of the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition (*DSM-IV*) Criteria for Major Depressive Disorder When Diagnosing Depression[a]

Reported Frequency of Using *DSM-IV* Criteria for Major Depressive Disorder	Nonpsychiatrist Physicians (n = 40)	Psychiatrists (n = 291)[b]
Less than 25% of the time	18 (45.0)	31 (10.7)
26%–50% of the time	9 (22.5)	35 (12.0)
51%–75% of the time	6 (15.0)	46 (15.8)
More than 75% of the time	7 (17.5)	176 (60.5)

[a]Data shown as n (%).
[b]Missing data in 3 subjects reduced the sample size to n = 288.

Nearly one-quarter of the psychiatrists indicated that they used the *DSM-IV* MDD criteria to diagnose depression less than half of the time (Table 1). Less than two-thirds of the psychiatrists indicated that they used the *DSM-IV* MDD criteria more than 75% of the time. In contrast, less than 20% of the nonpsychiatrist physicians indicated that they used the *DSM-IV* MDD criteria more than 75% of the time, and nearly half reported using the *DSM-IV* criteria less than 25% of the time. The difference between the psychiatrists and nonpsychiatrist physicians was significant ($\chi^2_4 = 43.1$, $P < .001$).

Among the psychiatrists, the reported use of the *DSM-IV* MDD criteria was significantly associated with age ($F_{4,280} = 4.1$, $P < .01$) and years in practice ($F_{4,280} = 3.0$, $P < .05$). Psychiatrists who reported using the *DSM-IV* MDD criteria less than 25% of the time were the oldest group (62.1 ± 9.1 years) and in practice for the longest amount of time (29.1 ± 9.1 years), whereas the psychiatrists who reported using the *DSM-IV* criteria to diagnose depression more than 75% of the time were the youngest group (54.3 ± 11.0 years) with the fewest years experience (21.4 ± 12.0 years).

DISCUSSION

The majority of psychiatrists reported usually using the *DSM-IV* MDD criteria when diagnosing depression; however, a substantial minority of psychiatrists reported applying the criteria less than half the time. The majority of nonpsychiatrist physicians reported that they do not use the *DSM-IV* MDD criteria the majority of the time. These are disconcerting findings. The symptom criteria used to diagnose MDD have not been changed much during the past 30 years, yet psychiatrists, especially older psychiatrists, apparently have not uniformly embraced their use. In addition, many nonpsychiatrist physicians seem to have rejected the formal application of these criteria.

Why don't all psychiatrists report almost always using the *DSM-IV* MDD criteria when diagnosing depression? A knowledge or recall deficit may be one possible reason. Perhaps a substantial number of psychiatrists do not recall all of the diagnostic criteria. Multiple studies of nonpsychiatrist physicians, and 1 study of psychiatric residents,

have demonstrated problems with recall.[6–10] Presumably, it is more difficult for a clinician to determine if a patient formally meets the MDD criteria if the clinician does not remember all of the criteria. Acronyms have been developed to facilitate recall of the MDD criteria, although it is unknown how helpful these have been. If incomplete recall is partially responsible for not using the criteria, then a briefer definition of MDD might facilitate appropriate application of the criteria. As part of the Rhode Island Methods to Improve Diagnostic Assessment and Services project, Zimmerman and colleagues[12] developed a briefer definition of MDD that was composed entirely of the mood and cognitive symptoms. The simplified definition did not include the somatic/vegetative symptoms because these features are more difficult to evaluate in medically ill patients. After determining the cutoff score that maximized agreement with the original *DSM-IV* definition, a high level of agreement was found between the simplified and original *DSM-IV* definition of MDD in the initial derivation sample and a cross-validation sample. Andrews and colleagues[13] replicated these findings in the community-based Australian National Survey of Mental Health and Well-Being. Both groups of researchers suggested that improved clinical utility of a briefer definition of MDD should be considered in deliberations for *DSM-V*.

Another reason why some psychiatrists might not routinely determine whether the *DSM-IV* MDD criteria are met when diagnosing depression is that they might disagree with *DSM-IV*'s categorical approach toward classifying depression. Studies comparing categorical versus dimensional approaches toward classifying depression have not consistently supported the categorical approach.[14,15] Consequently, perhaps some psychiatrists do not believe that it is important to distinguish depressed patients who have 5 or more symptom criteria from those with fewer than 5 symptom criteria when making treatment recommendations, even though most of the contemporary scientific literature on depression treatment is based on patients meeting criteria for MDD. While psychiatrists may question the validity of categorical classification and treat depression similarly, regardless of whether the threshold of 5 criteria is met, this is done in the face of little empirical evidence supporting the efficacy of medications in depressed patients who do not meet the MDD symptom criteria (ie, with depressive disorder not otherwise specified or adjustment disorder with depressed mood). The potential importance of the lack of a sufficient database in treating "subthreshold" depression is reinforced by evidence that differences between active medication and placebo are attenuated when symptom severity is mild.[16]

Another factor that could influence clinicians' perspectives regarding the importance of determining if the MDD criteria are met is the relative prevalence rates of threshold and subthreshold depression. Specifically, if a psychiatrist works in a setting in which 90% or more of the depressed patients presenting for treatment meet *DSM-IV* criteria for MDD and 10% or fewer have depressive disorder not otherwise specified or adjustment disorder with depressed mood (ie, subthreshold depression), then it might seem less important to formally determine if the MDD criteria are met.

There was a robust difference between the psychiatrists and nonpsychiatrist physicians in their reported use of the *DSM-IV* criteria, with nonpsychiatrist physicians reporting that they are more likely to diagnose patients with depression without using the current *DSM-IV* criteria. Perhaps nonpsychiatrist physicians have more difficulty recalling the criteria. Or, perhaps, they do not believe it is important to distinguish between MDD and subthreshold depression. Primary care physicians may be more inclined to prescribe antidepressant medication to patients with milder variants of depression because a high percentage of these patients respond to treatment. Although this might reflect the high placebo response rate that is associated with mild depression, their patients' positive clinical responses might reduce primary care physicians' motivation to invest more time in determining whether the formal diagnostic criteria are met.

Among the psychiatrists, we found that greater reported use of the *DSM-IV* criteria was significantly associated with younger age and fewer years in practice. Perhaps older psychiatrists who were trained in the pre–*DSM-III* era never bought into the importance of using operational criteria to make a diagnosis.

A limitation of the present study is that we did not ask clinicians about the reasons for not following the *DSM-IV* criteria. A better understanding of why psychiatrists, and nonpsychiatrist physicians, do not uniformly use the *DSM-IV* criteria when diagnosing depression warrants study in order to better understand how clinical utility influences the real-world use of the diagnostic criteria. Such information could assist the *DSM-V* work group charged with deciding whether the criteria for MDD warrant revision.

Another limitation is that subjects may have interpreted our question about use of diagnostic criteria for major depressive disorder differently. Some subjects might have understood the question as asking about the use of the 9 MDD symptom criteria specifically. Other subjects may have considered additional aspects of the criteria, such as various rule-out criteria, when responding to the question.

The results of the present study should be interpreted with caution because we did not conduct a random survey of psychiatrists and nonpsychiatrist physicians practicing in the United States. Rather, we surveyed physicians attending medical education conferences in geographically diverse regions of the country. Physicians attending these programs may not be representative of all physicians, though we are unsure in which direction the findings might be biased.

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