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# Clinical Utility: A Prerequisite for the Adoption of a Dimensional Approach in *DSM*

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A potential obstacle to implementing dimensional representations in the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*) is lack of data about clinical utility and user acceptability. Adopting a dimensional approach would likely complicate medical record keeping, create administrative and clinical barriers between mental disorders and medical conditions, require a massive retreating effort, disrupt research efforts (e.g., meta-analyses), and complicate clinicians' efforts to integrate prior clinical research using *DSM* categories into clinical practice. Efforts to empirically demonstrate the clinical utility of dimensional alternatives should be a prerequisite for their future implementation in order to establish that their advantages outweigh the disadvantages. Approaches to promote user acceptability and the development of an empirical database include dimensionalizing existing *DSM* categories and including research dimensions in the *DSM* appendix.

*Keywords:* clinical utility, *DSM–V*, categorical approaches, dimensional approaches, user acceptibility

This special section of the *Journal of Abnormal Psychology* is especially timely in that the *Diagnostic and Statistical Manual of Mental Disorders—Fifth Edition* (*DSM–V*) process is currently in a planning phase during which research is being actively encouraged to enrich the empirical database before the formal start of the *DSM–V* revision process in 2006 or 2007. The initial step in the research planning process was the preparation and publication of six white papers under the collective title *A Research Agenda for DSM–V* (Kupfer, First, & Regier, 2002b), one goal of which was "to transcend the limitations of the current *DSM* paradigm and to encourage a research agenda that goes beyond our current ways of thinking" (Kupfer, First, & Regier, 2002a, p. xix). Accordingly, in the "Basic Nomenclature Issues for *DSM–V*" white paper (Rounsaville et al., 2002), the authors issued a call to consider "the advantages and disadvantages of basing part or all of *DSM–V* on dimensions rather than categories" (p. 12). After weighing the pros and cons, however, they concluded that "it is premature to contemplate a largely dimensional *DSM–V*" (Rounsaville et al., 2002, p. 13). The authors did note that there is a clear need for dimensional models to be developed and for their utility to be compared with that of existing typologies, a recommendation echoed in the "Personality Disorders and Relational Disorders: A Research Agenda for Addressing Crucial Gaps in *DSM–V*" (First et al., 2002) white paper that called for research to determine "whether a dimensional model [of personality] can . . . provide theoretically and clinically useful information . . . and go beyond the existing diagnostic system in offering a compelling scientific rationale for the fundamental biobehavioral dimensions of personality functioning" (p. 144).

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The four main articles in this special section clearly come down on the pro side, advocating the eventual replacement of the current *DSM* typologies with dimensional representations of psychopathology (albeit with cutoff points to facilitate clinical use) and also advocating the reorganization of the *DSM* classification so that disorders that are part of the same underlying dimension are placed together within the same diagnostic grouping. Widiger and Samuel (2005) note a number of specific problems with the categorical model, including excessive diagnostic co-occurrence, boundary disputes, problematic reliability and temporal stability due to symptom fluctuation around diagnostic thresholds, and high rates of the use of NOS (i.e., not otherwise specified) categories to diagnose conditions that fall through the prototypic cracks. Clark (2005) critiques the current categorical separation of the personality disorders from other types of disorders, arguing that temperament dimensions may underlie personality traits, disorders, and other types of psychopathology. Watson (2005) questions the validity of the diagnostic groupings for the mood and anxiety disorders and proposes an alternative empirically based structure that reflects common comorbidities among disorders. Krueger, Markon, Patrick, and Iacono (2005) argue that the common co-occurrence of substance use, antisocial behavior, and personality traits such as aggression and impulsivity can be explained by the fact that these symptoms are part of the same externalizing dimension and likely share a common underlying genetic vulnerability and perhaps a common pathophysiology.

I also share Rounsaville and colleagues' (2002) concerns that the pros need to be carefully weighed against the cons if implementing dimensional models in *DSM–V* and beyond is going to be seriously considered. The articles in this special section present several arguments for the superiority of a dimensional approach over a categorical one, including (a) the lack of evidence for discrete breaks or demarcations in distributions of symptoms, (b) evidence of a superior fit of empirical data to latent structuring models that correspond to dimensional versus categorical ap-

proaches, (c) higher levels of diagnostic reliability and stability over time, and (d) elimination of the problematic artifacts of the categorical system, such as excessive diagnostic comorbidity and arbitrary diagnostic thresholds.

Although adopting a dimensional approach for modeling psychopathology has some clear advantages over the current categorical approach, the most important obstacle standing in the way of its implementation in *DSM–V* (and beyond) is questions about clinical utility. As noted in its introduction, the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text rev.; American Psychiatric Association, 2000) is used for many purposes and thus must serve many masters. First and foremost, it is intended to provide a helpful guide to clinical practice. Secondary goals include facilitating research into the etiology and treatment of mental disorders, improving the collection of clinical information, and educating practitioners, students, consumers, and the public about psychopathology (American Psychiatric Association, 2000). Most of the changes in the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM–IV*; American Psychiatric Association, 1994) were made, in fact, with the explicit goal of improving clinical utility. For example, criteria sets for autistic disorder, conduct disorder, dementia, amnestic disorder, substance dependence, schizophrenia, generalized anxiety disorder, somatization disorder, and antisocial personality disorder were simplified to make them easier to use clinically, and many new subtypes and disorders were added because of their implications for treatment selection (e.g., the atypical features specifier for major depressive episode predicting poor response to tricyclic antidepressants; First et al., 2004).

Each of the main articles in this special section acknowledges the importance of clinical utility to varying degrees, although Clark (2005) seems to minimize the issue by noting simply that "to those who argue that the *DSM* . . . ultimately must yield to important practical considerations, I respond with James Clerk Maxwell's famous dictum: 'There is nothing more practical than a good theory'" (p. 516). Krueger et al. (2005) advocate the clinical utility of adopting an externalizing spectrum/dimension, stating that it will lead "to a focus on generalized interventions for disorders within the spectrum, as well as variegated strategies for treatment of specific syndromes within the spectrum" (p. 546). Watson (2005) claims that "dimensional [models] yield a greater amount of clinically relevant information than simpler categorical models" (p. 533) and that "the best strategy is to start by obtaining the maximum amount of information possible (i.e., through quantitative dimensions) and then to simplify things as needed" (p. 534). Widiger and Samuel (2005) speculate that "a dimensional model of classification could provide a more specific and individualized profile description of a patient's psychopathology that may in turn have more differentiated and specific treatment implications" (p. 500). Finally, acknowledging the fact that "clinicians are often faced with the task of rendering a specific categorical decision about a specific person" (Krueger et al., 2005, p. 539), Widiger and Samuel, Watson, and Krueger et al. all propose that clinical categories can be derived by placing different cutoff points along dimensions of functioning that could be more meaningful and specific to different social and clinical decisions.

One of the most important components of clinical utility is user acceptability, that is, the extent to which "a diagnostic system is used *at all* by its intended end population" (First et al., 2004, p. 949). User acceptability of a dimensional approach is critically important because nonutilization would cancel out any potential benefits that might result from adopting a dimensional approach. One issue that therefore must be considered up front is the disruption to administrative, clinical, and research practices that would come as a result of switching to a dimensional system. Up to now, changes since the third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM–III*; American Psychiatric Association, 1980) have been for the most part incremental in nature, consisting mostly of refinements to diagnostic criteria and the creation of new categories and subtypes. Transitioning from a categorical to a dimensional *DSM* would involve radical changes in the diagnostic groupings, individual diagnostic entities, and diagnostic assessment procedures.

Administratively, adopting a dimensional approach would complicate medical record keeping and the collection of vital statistics by creating a sharp disparity between diagnoses of mental disorders and diagnoses of general medical conditions. The current categorical system of diagnostic terms and codes for the mental disorders is but one chapter of the 17-chapter *International Classification of Diseases* (*ICD*; World Health Organization, 1992), used in the United States and internationally for the recording and reporting of all health statistics. Using a dimensional model for the diagnosis of mental disorders alongside a categorical classification of medical conditions would create both an administrative and a clinical barrier between mental disorders and medical conditions and between mental health professionals and medical practitioners, reinforcing widely held prejudices that mental disorders and medical conditions are somehow fundamentally different. Undoubtedly, a conversion procedure would have to be used to generate categorical diagnoses from the dimensional system to allow for the government-mandated use of the *ICD* codes, creating an extra administrative burden on both clinicians and coders. Furthermore, because of clinicians' unfamiliarity with dimensional approaches, adopting a dimensional system would require a massive retraining effort for mental health professionals akin to that required when *DSM–III* was introduced in 1980 (Skodol, Spitzer, & Williams, 1981; Williams, Spitzer, & Skodol, 1985). Finally, adopting a dimensional approach would be disruptive to research practices. Research involving diagnostic groupings across numbers of studies (e.g., meta-analyses) or looking at diagnoses across different points in time (e.g., longitudinal studies) would be complicated by such a radical change in the diagnostic model across studies. Moreover, such research would require a significant retooling of research diagnostic instruments, all of which are based on the current categorical diagnostic system.

Of course, if a dimensional model were shown to be significantly advantageous in terms of diagnostic validity and clinical utility, administrators, clinicians, and researchers might accept the disruption as being worth the trouble. The introduction of *DSM–III* in 1980 represented a radical shift in diagnostic practices (e.g., adoption of an atheoretical approach, introduction of operationalized criteria) that was initially resisted by some psychiatrists (Klerman, Vaillant, Spitzer, & Michels, 1984). Ultimately *DSM–III* was embraced by the mental health community (Jampala, Sierles, & Taylor, 1986; Wilson, 1993) presumably because its advantages over the second edition of the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Associ-

ation, 1968; see Craig, Goodman, & Haugland, 1982; McKegney, 1982) outweighed the burden of implementation.

Establishing the clinical utility of dimensional systems remains one of the greatest challenges for proponents of dimensional systems. The current categorical system of *DSM* has clinical utility with regard to the treatment of individuals with mental disorders in large part because it follows a medical model of diagnosis. The clinician assesses the patient's clinical history and symptoms to determine which categorical diagnosis best applies. On the basis of this determination, the clinician then selects the best option from among the range of treatments considered appropriate for that diagnosis, implements the treatment, and, if the treatment is ultimately ineffective, either tries another treatment option or else reconsiders whether or not the initial diagnosis was correct.

The hegemony of the *DSM* categorical system in terms of its central place in the psychiatric and psychological knowledge base for the past quarter century is also responsible for its clinical utility. All mental health clinicians have been trained using the *DSM* categorical system. Psychology, psychiatry, and social work textbooks are organized using these diagnostic conceptualizations, practice guidelines have been developed based on these categories, and epidemiological data, service use and medical economic data, outcome data, and so forth have been compiled based on these categories. FDA-sanctioned drug indications for psychiatric medications are for the most part expressed in terms of the *DSM* categories. Thus, mental health professionals' familiarity with the current *DSM* categorical system allows them to apply the fruits of years of clinical research to their clinical practice.

A crucial component of clinical utility is the facilitation of clinical communication among mental health practitioners (First, 2003). Telling a colleague that a referral has borderline personality disorder suggests a range of treatments to be considered (e.g., dialectical behavior therapy and selective serotonin reuptake inhibitors) and clinical situations to be anticipated (e.g., impulsive behavior, unstable affect, and self-damaging behavior). Although Widiger and Samuel (2005) acknowledge this, noting that it is "simpler to inform a colleague that a patient has borderline personality disorder than to describe the patient in terms of the 30 facets of the FFM" (p. 500), they claim that such information is "more specific and precise" (pp. 499–500). Although it is certainly the case that describing a patient in terms of 30 scores on scales such as self-consciousness, assertiveness, esthetics, altruism, and dutifulness communicates more specific information than does a single diagnostic label, research devoted to understanding the clinical implication of these scores is less advanced. Such work has begun to appear (e.g., MacKenzie, 2002; Sanderson & Clarkin, 2002), but considerable additional work on the clinical application of dimensional systems will be necessary to convince clinicians who are accustomed to thinking about treatments for specific categories of mental disorder that dimensional approaches are useful in guiding clinical management.

Another practical consideration of adopting a dimensional approach concerns clinical assessment issues. Widiger and Samuel (2005) argue that "a dimensional classification might . . . be less cumbersome [than a categorical approach] because it would not require the assessment of numerous diagnostic criteria from overlapping categories" (p. 500). This argument is specious because, as argued by Cantor, Smith, French, and Mezzich (1980) and Westen and Shedler (2000), clinicians do not make *DSM* diagnoses in this manner. Instead, when clinicians evaluate patients using a categorical system, they are more likely determining the extent to which the patient's clinical presentation matches prototypes based on the *DSM–IV* diagnostic categories. These diagnostic criteria are incorporated into the clinician's prototypes and are not assessed individually each time a patient is evaluated (as is done when categorical diagnoses are made using research diagnostic interviews).

In contrast, diagnostic assessments using a dimensional approach generally entail determining a severity score for each dimension in the system. The most common method for assessing each dimension is to administer a self-report instrument like the NEO Personality Inventory—Revised (Costa & McCrae, 1992) for the five-factor dimensional model of personality disorders (FFM) or the Minnesota Multiphasic Personality Inventory—2 for general psychopathology (Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989). Although self-report instruments would require more time of the patient than of the clinician, they would add additional costs to the diagnostic assessment process, might not be readily available in all assessment settings, and have not been routinely integrated into most mental health practitioners' clinical practices. Widiger, Costa, and McCrae (2002) recommended a four-step process for provision of the personality disorder diagnosis from the perspective of the FFM, including providing a description of personality traits in terms of the five domains and 30 facets of the FFM; identifying problems, difficulties, and impairments secondary to each trait; determining whether the impairments are clinically significant; and determining whether the constellation of FFM traits matches the profile for a particular pattern. Thus, rather than being less clinically cumbersome, as Widiger and Samuel (2005) suggest, it appears that a comprehensive dimensional assessment is likely to entail more time, effort, and expense on the part of the clinician.

One could argue that adopting a dimensional *DSM* would force clinicians to modify their clinical assessment procedures for the better, leading to a more comprehensive evaluation by requiring a methodical assessment of various symptom dimensions. It should be noted however that prior attempts to use the *DSM* as a means of changing clinicians' behavior have met with mixed success. Although the provision of operationalized diagnostic criteria and the adoption of a multiaxial system for diagnostic evaluation were touted as major advancements in *DSM–III* (Spitzer, Williams, & Skodol, 1980), the extent to which clinicians actually apply diagnostic criteria in their clinical evaluations (Jampala, Sierles, & Taylor, 1988; Morey & Ochoa, 1989) or use the multiaxial system in their clinical practice (Bassett & Beiser, 1991; Jampala et al., 1986) remains doubtful, suggesting the level of resistance likely to be encountered with an even more radical shift to dimensional assessments.

All of the above points argue for an extensive effort to empirically demonstrate the clinical utility of proposed dimensional alternatives to the current *DSM* categorical system as a prerequisite for their implementation in future editions of the *DSM*. Such changes should be evaluated in terms of their impact on the use of the *DSM,* whether they enhance clinical decision making, and whether they improve clinical outcomes (First et al., 2004). What is the best way, then, to promote the development of such an empirical database for dimensional approaches? Although it is certainly the case that adopting dimensional approaches into

*DSM–V* would stimulate a great deal of research, this may be putting the cart before the horse in that it might potentially compromise the *DSM*'s current clinical utility.

One potential approach is to introduce dimensionality into the *DSM* categorical system gradually, in the least disruptive way possible. This might entail simply dimensionalizing the existing *DSM* categories by using symptom counts to produce dimensions. For example, as proposed by Oldham and Skodol (2000), the current *DSM–IV* categorical system for personality disorders could be made dimensional by creating 10 personality dimensions corresponding to the current *DSM–IV* personality disorder categories. Using this system, a patient's personality profile would consist of severity scores (i.e., symptom counts) on the 10 dimensions. This approach would have the advantage of easing clinicians into a dimensional approach while at the same time being less disruptive because clinicians would already be familiar with the dimensional constructs and able to apply the current clinical literature to these dimensionalized versions of the former categories.

The main problem with this approach is that it eliminates one of the most important advantages of the dimensional approaches that have been proposed to date, namely, the fact that the dimensions are empirically derived rather than being based on historical clinical concepts, as the traditional *DSM* categories are. One way to facilitate research and future clinical acceptance of such empirically derived but unfamiliar dimensions is to develop a set of proposed research dimensional scales that would be analogous to the Feighner criteria (Feighner et al., 1972), a set of research diagnostic criteria published in the *Archives of General Psychiatry* with the goal of "providing common ground for different research groups so that diagnostic definitions can be amended constructively as further studies are completed" (p. 57). Although validating evidence was used in the development of the Feighner criteria, for the most part, the symptom lists and diagnostic thresholds were developed by expert consensus. These criteria proved to be quite popular: They were cited over 1,157 times during the period from 1972 to 1980, which is over 70 times the number of citations that an average article published in the same journal receives (Blashfield, 1982), indicating that they did in fact fill an important void that existed in the psychiatric research community prior to the publication of *DSM–III*. The development of an analogous set of common research dimensions might encourage researchers to use these dimensions alongside the *DSM* categorical diagnoses in basic research and clinical studies. Over time, given a critical mass of empirical data documenting both diagnostic validity and treatment relevance, clinicians would be more likely to embrace these dimensions as clinically useful.

The process of developing a set of research dimensions will, by necessity, involve a combination of empirical science and expert consensus. Most of the dimensional systems that have been proposed were developed through empirical methods. The problem is that for most domains of psychopathology, different researchers have proposed different sets of dimensions. For example, in their excellent review of the alternative dimensional models of personality, Widiger and Simonsen (2005) described 18 different models, each with its own distinct selection of dimensions. Noting that "all but a few of the personality traits and behaviors contained within the 18 proposed models could be organized within a more fully developed, hierarchical structure" (Widiger & Simonsen, 2005, p. 113), the authors proposed that an integrated, unified dimensional model of personality disorder be developed, presumably through a process of combining empirical data with consensus building among the proponents of the various dimensional systems. These consensus research dimensions could either be published as a freestanding paper in a widely read journal (as was done with the Feighner criteria) or else be included as an appendix to *DSM–V*. There is a precedent in *DSM–IV* in its provision of an appendix of "Criteria Sets and Axes Provided for Further Study," which currently contains "alternative dimensional descriptors for schizophrenia" (American Psychiatric Association, 2000, p. 766).

The research methodologies and results presented in the four main articles included in this special section hold tremendous promise toward moving the *DSM* along in the direction of integrating dimensions into the classification and in helping to elucidate possible etiological factors underlying the *DSM* mental disorders. However, before such approaches can be seriously considered for inclusion in *DSM–V* and beyond, the clinical utility of dimensional approaches must be clearly demonstrated to the extent that the advantages of switching from a categorical to a dimensional approach clearly outweigh the inevitable costs.

## References


American Psychiatric Association. (1968). *Diagnostic and statistical manual of mental disorders* (2nd ed.). Washington, DC: Author.

American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed.). Washington, DC: Author.

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.

Bassett, A., & Beiser, M. (1991). *DSM–III*: Use of the multiaxial diagnostic system in clinical practice. *Canadian Journal of Psychiatry, 36,* 270–274.

Blashfield, R. (1982). Feighner et al., invisible colleges, and the Matthew effect. *Schizophrenia Bulletin, 8,* 1–12.

Butcher, J. N., Dahlstrom, W. G., Graham, J. R., Tellegen, A., & Kaemmer, B. (1989). *Minnesota Multiphasic Personality Inventory—2: Manual for administration and scoring.* Minneapolis: University of Minnesota Press.

Cantor, N., Smith, E., French, R., & Mezzich, J. (1980). Psychiatric diagnosis as prototype categorization. *Journal of Abnormal Psychology, 89,* 181–193.

Clark, L. A. (2005). Temperament as a unifying basis for personality and psychopathology. *Journal of Abnormal Psychology, 114,* 505–521.

Costa, P. T., Jr., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO-PI–R) and NEO Five-Factor Inventory (NEO-FFI) professional manual.* Odessa, FL: Psychological Assessment Resources.

Craig, T., Goodman, A., & Haugland, G. (1982). Impact of *DSM–III* on clinical practice. *American Journal of Psychiatry, 139,* 922–925.

Feighner, J., Robins, E., Guze, S. B., Woodruff, R. J., Winokur, G., & Munoz, R. (1972). Diagnostic criteria for use in psychiatric research. *Archives of General Psychiatry, 26,* 57–63.

First, M. (2003). Psychiatric classification. In A. Tasman, J. Kay, & J. Lieberman (Eds.), *Psychiatry* (2nd ed., Vol. 1, pp. 659–676). Chichester, England: Wiley.

First, M., Bell, C., Cuthbert, B., Krystal, J., Malison, R., Offord, D., et al. (2002). Personality disorders and relational disorders: A research agenda for addressing crucial gaps in *DSM*. In D. Kupfer, M. First, & D. Regier (Eds.), *A research agenda for DSM–V* (pp. 123–200). Washington, DC: American Psychiatric Association.

First, M., Pincus, H., Levine, J., Williams, J., Ustun, B., & Peele, R.

(2004). Clinical utility as a criterion for revising psychiatric diagnoses. *American Journal of Psychiatry, 161,* 946–954.

Jampala, V., Sierles, F., & Taylor, M. (1986). Consumers' views of *DSM–III*: Attitudes and practices of U.S. psychiatrists and 1984 graduating psychiatric residents. *American Journal of Psychiatry, 143,* 148–153.

Jampala, V., Sierles, F., & Taylor, M. (1988). The use of *DSM–III* in the United States: A case of not going by the book. *Comprehensive Psychiatry, 29,* 39–47.

Klerman, G., Vaillant, G., Spitzer, R., & Michels, R. (1984). A debate on *DSM–III. American Journal of Psychiatry, 141,* 539–553.

Krueger, R. F., Markon, K. E., Patrick, C. J., & Iacono, W. G. (2005). Externalizing psychopathology in adulthood: A dimensional-spectrum conceptualization and its implications for *DSM–V. Journal of Abnormal Psychology, 114,* 537–550.

Kupfer, D., First, M., & Regier, D. (2002a). Introduction. In D. Kupfer, M. First, & D. Regier (Eds.), *A research agenda for DSM–V* (pp. xv–xxiii). Washington, DC: American Psychiatric Association.

Kupfer, D., First, M., & Regier, D. (Eds.). (2002b). *A research agenda for DSM–V.* Washington, DC: American Psychiatric Association.

MacKenzie, K. (2002). Using personality measurements in clinical practice. In P. T. Costa, Jr., & T. A. Widiger (Eds.), *Personality disorders and the five-factor model of personality* (2nd ed., pp. 377–390). Washington, DC: American Psychological Association.

McKegney, F. (1982). *DSM–III*: A definite advance, but the struggle continues. *General Hospital Psychiatry, 4,* 281–282.

Morey, L., & Ochoa, E. (1989). An investigation of adherence to diagnostic criteria: Clinical diagnosis of the *DSM–III* personality disorders. *Journal of Personality Disorders, 3,* 180–192.

Oldham, J., & Skodol, A. (2000). Charting the future of Axis II. *Journal of Personality Disorders, 14,* 17–29.

Rounsaville, B., Alarcon, R., Andrews, G., Jackson, J., Kendell, R., & Kendler, K. S. (2002). Basic nomenclature issues for *DSM–V.* In D. Kupfer, M. First, & D. Regier (Eds.), *A research agenda for DSM–V* (pp. 1–30). Washington, DC: American Psychiatric Association.

Sanderson, C. & Clarkin, J. F. (2002). Further use of the NEO-PI–R personality dimensions in differential treatment planning. In P. T. Costa, Jr., & T. A. Widiger (Eds.), *Personality disorders and the five-factor model of personality* (2nd ed., pp. 351–376). Washington, DC: American Psychological Association.

Skodol, A., Spitzer, R., & Williams, J. (1981). Teaching and learning *DSM–III. American Journal of Psychiatry, 138,* 1581–1586.

Spitzer, R., Williams, J., & Skodol, A. (1980). *DSM–III*: The major achievements and an overview. *American Journal of Psychiatry, 137,* 151–164.

Watson, D. (2005). Rethinking the mood and anxiety disorders: A quantitative hierarchical model for *DSM–V. Journal of Abnormal Psychology, 114,* 522–536.

Westen, D., & Shedler, J. (2000). A prototype matching approach to diagnosing personality disorders: Toward *DSM–V. Journal of Personality Disorders, 14,* 109–126.

Widiger, T. A., Costa, P. T., Jr., & McCrae, R. R. (2002). A proposal for Axis II: Diagnosing personality disorders using the five-factor model. In P. T. Costa, Jr., & T. A. Widiger (Eds.), *Personality disorders and the five-factor model of personality* (2nd ed., pp. 431–456). Washington, DC: American Psychological Association.

Widiger, T. A., & Samuel, D. B. (2005). Diagnostic categories or dimensions? A question for the *Diagnostic and Statistical Manual of Mental Disorders—Fifth Edition. Journal of Abnormal Psychology, 114,* 494–504.

Widiger, T. A., & Simonsen, E. (2005). Alternative dimensional models of personality disorder: Finding a common ground. *Journal of Personality Disorders, 19,* 110–130.

Williams, J., Spitzer, R., & Skodol, A. (1985). *DSM–III* in residency training: Results of a national survey. *American Journal of Psychiatry, 142,* 755–758.

Wilson, M. (1993). *DSM–III* and the transformation of American psychiatry: A history. *American Journal of Psychiatry, 150,* 399–410.

World Health Organization. (1992). *International classification of diseases* (10th ed.). Geneva, Switzerland: Author.

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