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On the road to DSM-V and ICD-11

Abstract Development of the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-V) has been ongoing since 1994, though official release will not occur for another 4 years. Potential revisions are being derived from multiple sources, including building on perceived limitations of DSM-IV; broad-based literature reviews; secondary and primary data analyses; and discussions between global members of the mental health community. The current focus on aligning DSM with the *International Classification of Diseases-11* (ICD-11) speaks to the importance of creating a unified text that embraces cross-cutting issues of diagnostics, such as developmental, age-related, and cultural phenomena. International discourse is vital to this process and has been fostered by a National Institutes of Health-sponsored conference series on diagnosis-specific topics. From this series, the DSM-V Task Force developed the following set of revision principals to guide the efforts of the DSM-V Work Groups: grounding recommendations in empirical evidence; maintaining continuity with previous editions of DSM; removing *a priori* limitations on the amount of changes DSM-V may incur; and maintaining DSM's status as a living document. With work group formation complete, members are currently carrying out the research and revision recommendations proposed during the conference series. Ongoing activities include adding specialized advisors to each work group; completing literature reviews and planning data analyses; and forming study groups to discuss integration of cross-cutting issues (e.g., developmental lifespan factors; formation of diagnostic spectra). The road to DSM-V and ICD-11 has been challenging, but members continue to work diligently in their goal of constructing the most harmonious, scientifically sound, and clinically relevant DSM to date.

Key words ICD-11 · DSM-V · diagnostic criteria · developmental lifespan

Introduction

The *Diagnostic and Statistical Manual of Mental Disorders* (DSM) has often been referred to as "the bible" of psychiatric diagnostic texts. Nearly two decades after the release of the current edition, DSM-IV, the fifth edition of DSM (DSM-V) is projected for publication in May 2012. Shortly thereafter, the World Health Organization (WHO) will release its latest international diagnostic coding text, the 11th edition of the *International Classification of Diseases* (ICD-11), in 2014. Prior revisions to DSM have occurred relatively independently from changes to ICD—an obvious problem because psychiatric diagnoses cannot be viewed reliability if derived only from an ethnocentric lens. In order to maintain a comprehensive scope that supports an inclusionary classification system, changes to DSM-V should be made with regard to input from international colleagues. Indeed, the goal of refining DSM-V is not to provide a more advanced reference and clinical utility guide for American psychiatrists; rather, it is to provide a global clinical tool applicable to a variety of multicultural populations. Possible changes to DSM-V will therefore be considered in the context of how DSM and ICD may function as companion texts. In doing so, development of DSM-V will present a greater opportunity to unify and strengthen our knowledge of

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global mental health than any DSM revision process previously.

In 2007, the American Psychiatric Association (APA) and members of the DSM-V task force and work group committees formally began the process of developing the database to draft possible changes for the new revision—a process that continues today. In anticipation of their forthcoming findings, this report will review the achievements and developments of DSM-V thus far, including: (1) describing the initial processes leading up to task force and work group formation, (2) identifying and describing current task force and work group considerations, and (3) highlighting their efforts in making development of DSM-V parallel and harmonious with that of ICD-11.

Assessing the blueprint: intended purpose and perceived limitations of DSM-IV

First and foremost, DSM functions as a bridge between researchers responsible for maintaining the current state of the science and the healthcare providers who utilize such clinical data and findings for patient care. As a result, DSM as with ICD, is considered primarily a clinical tool for assigning diagnoses appropriately [9]. Accurate diagnosis informs several aspects of psychiatric care, namely treatment decisions, including early detection of disorders, early and appropriate interventions, and maintaining improvement for optimizing day-to-day functioning. DSM also functions dually as a research tool in that it is foundationally built on empirical findings and serves as a springboard for future research on how to conceptualize the underlying ideology of psychiatric illness, such as etiology, treatment, and clinical decision-making [9].

Almost immediately after publication in 1994, DSM-IV was noted to have several limitations, weakening its clinical reputation and hindering its ability to further our scientific progress on understanding psychiatric diagnosis and etiology. The reliability of DSM as a clinical tool has been upheld but less emphasis has been given to its validity. Face validity has generally gone hand-in-hand with clinical reliability, but other forms of more stringent validity, including specificity and sensitivity, are lacking [9]. With such strong focus on diagnostics, DSM-IV and its predecessors have done little to clarify how to assess disease severity and disability. Furthermore, the multiaxial system of operationalizing diagnoses categorically has fallen short of fully incorporating quantitative gradients of disease impairment. The categorical classification has also resulted in rather heterogeneous disorders being arbitrarily lumped together, the consequences of which include overuse of the "not otherwise specified" categorization, overly high rates of comorbidities between diagnoses, and the inability to detect a single genetic marker identifying underpinning etiologies.

Table 1 Contemporary adaptation for DSM-V

Clinical characteristics and course (behavioral phenotype)
Neurobiological profile
Genetic/familial pattern
Context/environment
Treatment response and follow-up studies

The establishment of guidelines for validating nosological categories was delineated more than 30 years ago by Robins and Guze [12]. Their 5-phase model included developing a clinical phenotype, gathering laboratory findings, providing a differential diagnosis from other disorders, creating follow-up studies, and determining family history. Despite its routine application toward construct validity, Robins' and Guze's guidelines have failed to assist researchers in determining any biomarker specific to identifying a single DSM-IV syndrome. In an effort to address DSM-IV's aforementioned limitations and enhance overall validity, task force and work group members are now altering these guidelines to create a more contemporary validation process—one perhaps best characterized as "Robins and Guze on steroids" [1]. This includes building a behavioral phenotype of clinical description and course, creating a neurobiological profile, identifying genetic and familial patterns, considering the interaction between biology and environment, and emphasizing treatment response and follow-up studies (see Table 1).

The lack of integration of cross-cutting factors, such as age-related and cultural considerations, has also been problematic for DSM-IV and resulted in too much intradiagnostic variability. One strategy for improvement is actively focusing on overarching themes that may play a key role in the conceptualization of disease presentation and classification. Such themes include the ways in which diagnoses and symptoms vary across the developmental lifespan, how gender and cultural diversity affect symptomatology, and how advances in neuroscience and behavioral science over the past two decades have both increased our knowledge of etiologies and widened the gaps in our existing diagnostic system. A primary goal for revising DSM-V, then, is to more fully incorporate research from the past two decades in an attempt to build an empirical foundation from multiple scientific disciplines. This is facilitated by the involvement of multidisciplinary and international scientists, which again underscores the importance of harmonizing DSM development with that of ICD.

In an effort to stimulate international discourse and move closer to the objective of rebuilding DSM-V's scientific base, the APA convened three research conferences from 1999 to 2002. From these conferences came a series of six white papers, which were

Table 2 The APA/WHO/NIH research planning conference series on the future of psychiatric diagnosis

Conference	Place	Date
Launch and methodology conference	Bethesda, Maryland	February 18–20, 2004
Personality disorders	Arlington, Virginia	December 1–3, 2004
Substance use disorders	Rockville, Maryland	February 14–17, 2005
Stress-induced and fear circuitry disorders	Arlington, Virginia	June 23–24, 2005
Dementia	Geneva, Switzerland	September 16–17, 2005
Deconstructing psychosis	Arlington, Virginia	February 16–17, 2006
Obsessive-compulsive behavior spectrum	Arlington, Virginia	June 21–22, 2006
Dimensional aspects of diagnosis	Bethesda, Maryland	July 27–28, 2006
Somatic presentation of disorders	Beijing, China	September 6–8, 2006
Externalizing disorders of childhood	Mexico City, Mexico	February 14–16, 2007
Depression and generalized anxiety disorder	London, England	June 20–22, 2007
Public health implications of psychiatric diagnosis	Geneva, Switzerland	September 26–28, 2007
Autism and other pervasive developmental disorders[a]	Sacramento, California	February 3–5, 2008

[a]This conference was not part of the original 13 comprising the grant-funded series. This conference was added after receiving additional grant funding

published as two monographs, entitled "A Research Agenda for DSM-V" [1] and "Age and Gender Considerations in Psychiatric Diagnosis: A Research Agenda for DSM-V" [2]. These effectively addressed topic discussions in nomenclature, disability and impairment, developmental approaches, advances in neuroscience, cross-cultural issues, and current gaps in the classification system.

Construction of DSM-V: paving the way with the international conference series

Following the release of the white paper monographs, the APA, with funding from a $1.1 million grant from the National Institutes of Health (NIH) and in collaboration with WHO, began in 2003 a 5-year series of 13 international conferences. This represented the first major step in developing the "intellectual template" and processes leading to potential revisions, and advocated for greater consideration of cognitive, behavioral, familial, genetic, and neuroscience factors in refining the nosology. The APA/WHO/NIH conference series had two primary aims: to ensure international collaboration was prioritized throughout the development process, and to stimulate the clinical research necessary to inform decision-making processes. This conference series was truly a global event, with 367 participants from 39 countries around the world, 16 of which were developing nations. More than half (53%) of the participants were from outside the United States (see Table 2).

The conferences were each organized by diagnostic approach and, to some extent, by cross-cutting themes. For example, after the launch conference in 2004, the initial conference on personality disorders concentrated heavily on the appropriateness of a dimensional categorization versus the current dichotomous classification system. Subsequent conferences included topics on substance use disorders, stress-induced and fear circuitry disorders, dementia, psychosis, obsessive-compulsive disorders, dimensional aspects of psychiatric diagnosis, somatoform disorders, externalizing disorders, depression and generalized anxiety disorder, and public health implications of psychiatric diagnoses. From these, there have been an additional three published monographs for the meetings on personality disorders, substance use disorders, and dementia [3, 4, 6]. Forthcoming monographs will be published covering the remaining conferences.

The public health conference was particularly relevant to the mission of pairing DSM-V with ICD-11 because of its emphasis on broadening the diagnostic perspective and integrating the practical aspects of what healthcare providers around the world contend with on a daily basis in respect to providing mental health care to their patients. Attention was also given to the importance of simplifying clinical measures for use not just in America and not just by psychiatrists but by health professionals in psychology, social work, family practice, pediatrics, internal medicine, and obstetrics-gynecology around the globe. Ideally, the organization and utility of DSM-V would be such that all clinicians will feel prepared to handle issues related to psychiatric diagnosis, irrespective of whether a referral to psychiatry is or can be made.

Following the conclusion of the conference series, task force and work group members devised an agenda to pragmatically apply the content from each conference and move closer to the revision goals. Among their initial tasks are to better harmonize DSM and ICD timelines to keep revisions consistent and parallel; to consider separating severity, disability, and impairment from diagnostic criteria; and to examine the possibility of classifying diagnoses coherently in a smaller number of super-ordinate categories.

Bumps in the road: new perspectives lead to revised principles

Since the publication of DSM-IV, several trends in psychiatry and public health as a whole have emerged

Table 3 Dimensional approach to diagnostic classification

The DSM-V could benefit from offering explicit criteria for both categories and (not or) dimensions
For any specific psychiatric disorder, a number of aspects could be conceptualized and assessed dimensionally
Recognition of cross-cutting dimensions in the DSM could also yield important benefits for research and practice
Dimensional definitions could encourage sensitivity to development, gender, and ethnicity
Clinicians think dimensionally and welcome explicit dimensional concepts
Bottom-up research to inform DSM-VI could be facilitated by dimensions in DSM-V

that must be taken into account as secondary factors to possible revisions. There has been a sharp increase in posttraumatic stress disorder (PTSD) diagnoses and traumatic injuries, with considerable physical and psychiatric morbidity due to increased military and civilian causalities. Secondly, obesity is a global pandemic spanning age, gender, and cultural subgroups and is particularly relevant to discussions on medical-psychiatric interrelationships. Finally, changes in drug prescription usage and self-medication with unprescribed drugs have increased awareness of addiction and medical complications. From these new perspectives, and based on the overall goals extending from the APA/NIH/WHO conference series, committee members devised the following revisions principles to guide the revision process:

(1) Recommendations will be grounded in empirical evidence.
(2) Any changes to DSM-V must be made in light of maintaining continuity with previous editions.
(3) There are no preset limitations on the number of changes that may occur.
(4) The DSM will continue to exist as a living, evolving document that can be updated and reinterpreted.

Ideally, changes to DSM-V will propel us toward using different diagnostic thresholds and will therefore improve detection and treatment. However, rushing to publication may result in more gaps and the scientific community waiting another two decades before a more efficient DSM is created.

Its diagnostic utility notwithstanding, DSM's current clinical effectiveness is lacking when it comes to defining disability, impairment, symptom severity, and issues of quality of life. This is why a dimensional perspective is vital to this development [5, 10].

Psychiatric diagnoses do not exist in a vacuum, and most any practitioner can attest to the multitude of ways in which they have witnessed a disorder impact patient functioning. A dimensional approach might not only include capturing these aspects quantitatively but could encourage greater clinician sensitivity to these areas. The notion of dimensionality will, therefore, be considered independently and in conjunction with categorical classification systems. By creating such a system for DSM-V, this may help inform, by a bottom-up process, future revisions to DSM-VI (see Table 3).

The road to DSM-V and ICD-11: where are we now and where are we headed?

Last year, DSM-V's task force, represented by 13 work group chairs and a number of other health professionals and experts, was appointed. Their primary objective up to this point has been to oversee the creation and implementation of the work groups, who soon will begin the process of incorporating specialized advisors into their committees. The task force, along with the work groups, is charged with assessing which individual disorders are ready to incorporate changes and, when appropriate, which diagnostic measures might be used. In addition, they will discuss the numerous recommendations that came from the international conference series and coordinate any possible changes with WHO and ICD-11 over the next 5 years.

In addition to the work being done by the task force and work groups, specific cross-cutting issues are being examined by topic-specific study groups. As mentioned previously, there is a strong need to address lifespan and development issues and how they relate to age of onset and symptom presentation. Related to this is the concept of how diagnoses change across the lifespan, such as using a developmental approach to elucidate the onset and characterization of pediatric bipolar disorder [11]. A diagnostic spectra study group will discuss grouping disorders descriptively on the basis of etiology and pathophysiology, rather than only by symptom and syndromes. This could encourage practitioners and researchers to consider the processes underlying each disorder with diagnoses viewed as spectra, such as an obsessive behavioral spectrum, mood spectrum, and schizophrenia spectrum. This type of perspective may help researchers clarify topics such as the appropriate placement and alignment of disorders (e.g., generalized anxiety and major depressive disorder). Another aspect of this process is to consider other potential validations of diagnosis [8]. Such domains might include neural substrates, familiality, genetic risk factors, specific environmental risk factors, biomarkers, temperamental antecedents, symptom similarity, abnormality of cognitive or emotional processing, course of illness, high rates of comorbidity, and treatment response.

Understanding the medical interface of psychiatric disorders—whether it be a primary, secondary, causal, or non-causal relationship—is vital to deconstructing the phenomena of comorbidity and somatic presentations of illness. Such is the task of a third study group focusing on psychiatric/general medical

interface. This group will examine the linkage between the central nervous system and other organ systems, including differentiation of somatic symptoms that are a central part of the diagnostic picture (e.g., anorexia in depression) from those that are comorbid to the diagnosis (e.g., somatic pain in depression). Understanding the etiology of somatic symptoms informs treatment decisions, such as non-pharmacological treatment for psychogenic phenomena. This study group in particular has the opportunity to re-examine functional impairment, as patients often must deal with physical and psychiatric disorders simultaneously. Considerable work by WHO on functional impairment has been conducted in the last decade [7, 13, 14]. Lastly, a fourth study group will investigate how intradiagnostic variability may be accounted for by gender and cultural factors and how to address these manifestations in DSM-V. This again underscores the multicultural perspective of the revision process and reflects the efforts of the committee members to be globally minded in their deliberations.

Between 2007 and 2010, the task force and work groups will need to carefully examine the events that have unfolded since DSM-IV's publication. There will be a need for selected secondary data analyses, as well as specific field trials for the collection of data to test our new criteria. In order to enhance unification of DSM and ICD, these field trials could be implemented both in the United States and in other counties. Questions pertaining to draft options criteria and criteria refinement seem far in the distance, but they will eventually need addressing and must be done in timely fashion.

Conclusions: ending where we began

Since planning began in 1993, the scientific base for possible revisions to DSM-V has grown substantially, but with an increase in knowledge comes an increase in questions. The process began with the expectation that the alignment of DSM with ICD could yield a better classification system than what we have currently, and this is where the task force and work groups are currently focused. The goal of improving DSM-V is lofty, but with the care of our patients at stake, we have no other option than to set the highest of goals and no other choice but to meet them head-on.

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