DSM-5 Conceptual Changes: Innovations, Limitations and Clinical Implications

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The *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (*DSM-5*) includes numerous alterations to specific disorders, as well as fundamental conceptual and organizational changes. The purpose of this article is to review three fundamental conceptual changes in *DSM-5*: the harmonization of the manual with the *International Statistical Classification of Diseases and Related Health Problems*, the introduction of spectrum disorders and dimensional ratings, and the new organization of the manual. For each change, potential benefits and shortcomings are discussed in terms of innovation, limitations and clinical implications.

Keywords: *DSM-5*, *ICD-10*, classification, diagnosis, spectrum disorders

The *DSM* is probably one of the most widely referenced texts in the mental health field. Considering this scope of influence, the release of its latest edition, *DSM-5* (American Psychiatric Association [APA], 2013), has garnered considerable interest among professionals, patient advocacy groups and the public alike (Paris, 2013). Reactions have ranged from enthusiastic support (McCarron, 2013) to concern (Welch, Klassen, Borisova, & Clothier, 2013) and even calls to reject the manual's use outright (Frances, 2013; Frances & Widiger; 2012). The strength of this reaction—both positive and negative—reflects the scope of change. *DSM-5* attempts to integrate almost 20 years of burgeoning research in psychopathology, classification and treatment outcomes that have emerged since the publication of *DSM-IV* (APA, 1994), the last major revision of the manual's criteria sets. While *DSM-5* has made numerous alterations to specific disorders, fundamental conceptual and organizational changes have had the most substantial impact on reshaping the manual (APA, 2013; Regier, Kuhl, & Kupfer, 2013).

The purpose of this article is to review three of these fundamental conceptual changes: the harmonization of the manual with the *ICD*, the introduction of spectrum disorders and dimensional ratings, and the new organization of the manual. For each of these innovations, three questions will be addressed. First, what was the basis for introducing the change as an innovation to the manual? Here the rationale and potential contribution of the change will be discussed. Special attention will be paid to issues such as enhanced diagnostic accuracy, coverage and clinical utility. Second, does the innovation have any potential drawbacks or limitations? For example, to what extent could the innovation contribute to over or underdiagnosis, limit access to treatment, or pose some harm like increased stigmatization? Third, what are the practical consequences of the innovation relative to how clinical mental health counselors provide care for their clients? This section considers the impact on day-to-day practice and how the diagnostic process itself may be transformed. The conclusion section ties these three threads of innovations together and discusses implications for mental health practice in the 21st century.

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DSM and *ICD* Harmony

There are two major classification systems for mental disorders: the *DSM*, used primarily in North America, and the *ICD*, used worldwide under the auspices of the World Health Organization (WHO). The *ICD* is a much broader classification encompassing causes of death, illness, injury and related health issues with one chapter dedicated to mental and behavioral disorders (Stein, Lund, & Nesse, 2013). As part of the United Nations Charter, countries around the world have agreed to use the *ICD* codes to report mortality, morbidity and other health information so that uniform statistics can be compiled. In the United States, the *ICD* codes are the official codes approved by the Health Insurance Portability and Accountability Act (HIPAA), which are used by insurance companies, Medicare, Medicaid and other health-related agencies (Goodheart, 2014). The code numbers that the *DSM* has always used are derived from whatever the official version of *ICD* is at that time. Currently, the ninth revision of the *ICD* (*ICD-9*; WHO, 1979) is the official coding system in the United States. The 10th revision of the *ICD* (*ICD-10*; WHO, 1992/2010) is scheduled to go into effect on October 1, 2015.

The *DSM* and *ICD* classifications of mental disorders have a number of similarities, but also have important differences. Both are *descriptive* classifications that categorize mental disorders based upon a constellation or *syndrome* of symptoms and signs. Symptoms are the client's reports of personal experiences such as feeling sad, anxious or worried. Signs, on the other hand, are observable client behaviors such as crying, rapid speech, and flat affect. Structurally, both manuals group related mental disorders into either chapters (*DSM*) or diagnostic blocks (*ICD*). The names and diagnostic descriptions for many of the mental disorders in the *ICD* are similar to those in the *DSM*, a consequence of collaboration over the years and a shared empirical pool from which both have drawn.

Despite these similarities, there are significant disparities. First, *DSM* criteria are very specific and detailed, while the *ICD* relies more on prototype descriptions with less detailed criteria and minimal background information to guide the diagnostic process (First, 2009; Paris, 2013; Stein et al., 2013; WHO, 1992). Second, since *DSM-III* (APA, 1980), the *DSM* has used a multiaxial system that notes not only relevant mental and medical disorders, but also other diagnostic information such as environmental factors (Axis IV) and level of functioning (Axis V). The *ICD*, on the other hand, has always employed a nonaxial system that simply lists medical disorders, mental disorders, and other health conditions. These differences in complexity reflect the constituencies that each manual is designed to serve: The *DSM* is primarily used by licensed mental health professionals with advanced degrees, while the *ICD* needs to be accessible to a range of health care professionals worldwide with a broad range of educational backgrounds (Kupfer, Kuhl, & Wulsin, 2013; WHO, 1992).

A third discrepancy is that the names and descriptions for many disorders differ, which at times reflects marked conceptual differences (First, 2009). For example, in *ICD-10* (WHO, 1992) bulimia nervosa has to be characterized by a "morbid dread of fatness" (p. 179), a concept akin to anorexia, while *DSM-IV-TR* (Text Revision; APA, 2000) requires that self-evaluation be "influenced" (p. 549) by only body shape or weight. As another example, the definition of the type of trauma that qualifies for post-traumatic stress disorder (PTSD) is much broader in *ICD-10* (allowing for events that are exceptionally threatening or catastrophic) than in *DSM-IV-TR* (requiring that the event must be associated with actual or threatened death, serious injury, or threat to the physical integrity). These *ICD-DSM* disparities have led to difficulties comparing research results, collecting health statistics, communicating diagnostic information and reaching similar diagnostic decisions (APA, 2013; First, 2009; Widiger, 2005). Like conversing in two different languages, the diagnosis has often been lost in translation.

Innovation

From the outset of the *DSM-5* development process there was a concerted effort to address these disparities. Joint meetings of representatives from APA and WHO met regularly throughout the process in an effort to make the manuals more compatible (APA, 2013; Regier et al., 2013). The goal was to find ways of harmonizing structural, conceptual and disorder-specific differences. The results of this process have had immediate effects on the look of *DSM-5* and will have long-term effects on the harmonization of *DSM-5* with the upcoming *ICD-11*, expected to be released in 2017 (APA, 2013; Goodheart, 2014).

The most significant impact of the harmonizing effort is the discontinuation of the multiaxial system in *DSM-5*. Axes I–III, the diagnostic axes (APA, 2000), are now collapsed into a nonaxial system, consistent with the *ICD* format. Psychosocial and environmental problems (formerly Axis IV) can be noted using *ICD-10*'s codes for problems and situations that influence health status or reasons for seeking care. These are usually referred to as *Z codes* and were formerly termed *V codes* in *DSM-IV-TR*. Axis V's Global Assessment of Functioning (GAF) has been removed and replaced by an *ICD* measure for disability, the World Health Organization Disability Assessment Schedule (WHODAS) 2.0 (APA, 2013). Unlike the GAF, however, this rating is not required and serves only as an ancillary tool.

The following is an example of how a *DSM-5* diagnosis might be listed using *ICD-9*'s nonaxial system in *ICD-9*:

> 296.42 Bipolar I disorder, current episode manic, moderate severity, with mixed features
> 307.83 Borderline personality disorder
> V62.29 Other problem related to employment

The order of diagnoses would indicate that the bipolar disorder was the principal diagnosis and either the focus of treatment or reason for visit. In this example, borderline personality disorder is a secondary diagnosis. The V code is noted because it is an important area to target in the treatment plan.

There were three major reasons for abandoning the multiaxial system. First, health professionals in general medicine found it difficult to use because it was so different from the *ICD* format (Kupfer et al., 2013). Second, the multiaxial system contributed to the idea that mental disorders were qualitatively different from medical disorders, a dated dualistic distinction between mind and body (APA, 2013; Kupfer et al., 2013; Lilienfeld, Smith, & Watts, 2013). Third, research had shown that distinctions between Axes I and II were artificial and did not reflect that these axes actually overlapped considerably (Lilienfeld et al., 2013). Thus, the multiaxial system seemed to create artificial distinctions that did not seem valid (Lilienfeld et al., 2013). The *ICD*, on the other hand, offered a more simplified system that allowed a diverse group of health professionals to code disorders using a similar format.

Substantial harmonization of the manuals, however, will happen in the future. Not much could be done with harmonizing *ICD-10* (WHO, 1992), a manual of the *DSM-IV* (APA, 1994) era, the organization and conceptual framework of which were well established (APA, 2013; Goodheart, 2014). The forthcoming *ICD-11* will adopt much of *DSM-5*'s organizational restructuring (discussed below) and include a number of the new *DSM-5* disorders (APA, 2013; Goodheart, 2014).

Limitations

Despite the potential contribution of this harmonization, there are three major drawbacks to consider. First, the loss of the multiaxial system may compromise the richness of the diagnostic assessment. In a sense, the

multiaxial system was holistic in that it provided a way of noting prominent psychiatric conditions, maladaptive personality functioning, medical conditions, relevant stressors and environmental problems, and overall functioning. What will prompt clinicians to consider these important domains remains unclear. Noting V codes and assessing disability using the WHODAS 2.0 may be an alternative. However, these tasks are not required in the diagnostic workup and, if history is any guide, will probably be underutilized.

A second consideration is that consilience with the *ICD* clearly makes the *DSM-5* a "medical classification" (APA, 2013, p. 10) and as David Kupfer, the Task Force Chair of *DSM-5*, has put it, "psychiatric disorders *are* medical disorders" (Kupfer et al., 2013, p. 388). The *DSM* espouses that it is atheoretical (APA, 2013; Lilienfeld et al., 2013), but the momentum is clearly swinging toward the central role of biological factors. This risks a reductionistic conceptualization of mind as simply brain. Alternative perspectives that recognize the importance of contextual, psychological, developmental and cultural factors, fundamental to the mental health counseling tradition (Gintner & Mears, 2009), may suffer as a result. The picture is more ominous considering the National Institute of Mental Health's initiative, Research Domain Criteria (RDoC), designed to develop the next generation of psychiatric classification based upon underlying etiology of "brain disorders" (p. 749) and the identification of biomarkers (e.g., laboratory tests) to direct treatment selection (Insel et al., 2010). The direction in which the diagnostic train is heading is clear. The question is whether the track can be altered to one that is more balanced and biopsychosocial.

A third concern is that efforts to harmonize the manuals do not address many of the disparities between *DSM-5* and *ICD-9* or *ICD-10*. This is particularly true of the new disorders that *DSM-5* has added, which lack clear *ICD-9* or *ICD-10* counterparts. The *ICD* codes that have been selected often do not map well onto these disorders. For example, the code for *DSM-5*'s hoarding disorder translates to *ICD-9*'s and *ICD-10*'s obsessive-compulsive disorder (OCD). Ironically, hoarding disorder was added because research showed that 80% of the time individuals with this condition did not meet criteria for OCD. As another example, binge eating disorder was added to *DSM-5* to recognize individuals who had a pattern of maladaptive bingeing episodes, but did not have the compensatory behaviors (e.g., purging) characteristic of bulimia nervosa. The *ICD* code selected for this disorder was, nevertheless, bulimia nervosa. Because *ICD* is updated annually, it may be that more appropriate codes will be made available in future years. Thus, while *ICD-DSM* consilience has occurred, at least to this point, it has been superficial and restricted to the nonaxial formatting of the diagnosis. Clearly, it may enhance the curb appeal of *DSM-5* to the medical community, but the real interior renovation is yet to occur, awaiting *ICD-11*.

Clinical Implications

The demise of the multiaxial system means that mental health counselors must be more intentionally biopsychosocial in their diagnostic assessments. More meat can be put on the bare-bones nonaxial system by systematically assessing these biological, psychological and sociocultural factors. This can be accomplished by always assessing whether any important contextual factors can be noted using the V codes, which will be termed *Z codes* when *ICD-10* goes into effect. The WHODAS 2.0, the retired GAF, and other functioning measures can be recruited to assess impairment. While these measures are not part of the formal diagnosis, they can be noted in the chart and inform treatment planning.

Many insurance companies require a multiaxial diagnosis. The GAF score was often used to justify level of care. At the time of this writing, it is not clear what insurance companies will do with these modifications. The decision here will be important. What insurance companies require, for better or worse, often has profound impact on what clinicians do and the kind of clinical care they deliver.

Spectrum Disorders and Dimensionality

Both the *DSM* and *ICD* classify mental disorders into discrete categories. Clinicians make a yes-no decision about whether or not an individual has a disorder, based upon the particular criteria. But it has long been known that this categorical approach is fraught with problems (First & Westen, 2007; Widiger, 2005). First, comorbidity is common and there is some question as to whether comorbid conditions such as depression and anxiety are distinct or are really different expressions of some shared underlying dysfunction (Lilienfeld et al., 2013). Second, clinicians have used the *not otherwise specified* (NOS) category 30–50% of the time, indicating that a sizable proportion of phenomena have a varied presentation that existing categories do not capture (Widiger, 2005). This is problematic because NOS is not particularly informative in terms of describing the condition or making decisions about treatments. Finally, a categorical system assumes that each disorder is homogenous and that *disorder* occurs at the particular cut point. There is no recognition of subthreshold symptoms, and there is the assumption that those who do fulfill the criteria are qualitatively similar. This view is at odds with data showing that symptoms vary considerably in terms of severity and accompanying features (First & Tasman, 2004). In this sense, categorical assignment loses potentially useful clinical information about the condition and about what treatment strategies might be indicated.

Innovation

DSM-5 attempts to address this issue by introducing dimensionality to supplement the categorical approach (APA, 2013). While categories indicate differences in *kind*, dimensions describe variations in *degree* (Lilienfeld et al., 2013)*.* From this perspective, mental disorders are considered to lie on a continuum, like blood pressure. Theoretically, the spectrum can run from optimal functioning to significant impairment. Markers of morbidity or adverse outcome determine where on the spectrum the cut point for *disorder* is drawn. In the case of blood pressure, for example, it is 140/90. This dimensionality allows for more fine-grained determination of not only severity or impairment, but also improvement or deterioration. Over the past 30 years, research has shown that many mental disorders appear to be more dimensional and heterogeneous than suggested by *ICD*'s or *DSM*'s purely categorical system (First & Westen, 2007; Helzer, 2011; Paris, 2013).

Dimensionality is incorporated into *DSM-5* in three general ways. First, *DSM-5* has added several formal spectrum disorders, which combine highly related disorders. Autism spectrum disorder merges together *DSM-IV-TR's* autism disorder, Asperger's disorder, childhood disintegrative disorder and pervasive developmental disorder NOS. Research has shown that these four conditions share many common symptoms, and the differences are more a matter of degree (APA, 2013; Tsai & Ghaziuddin, 2014). Another spectrum disorder is substance use disorder, which blends the former categories of abuse and dependence. The somatic spectrum is captured by somatic symptoms disorder, which merges what was formerly somatization disorder, pain disorder and undifferentiated somatoform disorder. For each of these spectrum disorders, *DSM-5* provides a severity rating as well as other specifiers to note degree of impairment and complicating features.

A second way that dimensionality is infused into *DSM-5* is that severity ratings and an expanded list of specifiers have been placed within the existing categories. In a sense, *DSM-5* tries to dimensionalize the category. While this was done to some extent in previous editions, *DSM-5* broadens this effort throughout the manual. For example, a number of new specifiers were added to describe mood episodes such as *anxious distress* (presence of comorbid anxiety), *mixed features* (presence of symptoms from the opposite mood pole), and *peripartum onset* (onset of symptoms sometime during pregnancy through one month post-delivery). The addition of these notations can be helpful in making treatment-planning decisions (First & Tasman, 2004). For example, severity ratings are an important consideration in deciding whether to use psychotherapy or

medication for the treatment of major depressive disorder (APA, 2010). Feature specifiers like *anxious distress* and *mixed features* have been shown to increase suicide risk and portend a more complicated treatment regime (APA, 2013; Vieta & Valentí, 2013).

A third way that dimensionality is being promoted in *DSM-5* is through the availability of a variety of online assessment measures (APA, 2014). These are rating scales that fall into three general categories. First, there are disorder-specific measures that correspond closely to the diagnostic criteria. These measures could be used to buttress the more clinical assessment that relies on the diagnostic criteria. They could also provide a means of assessing the client's baseline and response to treatment over time. Measures are available for a range of disorders including depression, many of the anxiety disorders, PTSD, acute stress disorder and dissociative symptoms. Versions are available for adults as well as children aged 11–17. Most of these are self-completed but some are clinician-rated. A second type of measure is the WHODAS 2.0, discussed earlier, which assesses domains of disability in adults 18 and older. A third type of measure is referred to as cross-cutting symptom measures (CCSM). Similar to a broadband assessment of bodily systems in medicine, these measures assess common psychiatric symptoms that may present across diagnostic boundaries and may be clinically significant to note in the overall treatment plan. Level 1 CCSM is a brief survey of 13 domains of symptoms (e.g., depression, anxiety, psychosis, obsessions, mania). A more in-depth Level 2 assessment measure is available for a domain that indicates a significantly high rating. These measures can be reproduced and used freely by researchers and clinicians and can be downloaded at http://www.psychiatry.org/practice/dsm/dsm5/online-assessment-measures. Use of these types of measure is hoped to add surplus information that can aid diagnosis, case monitoring and treatment planning.

Limitations

Dimensions are not only intuitively appealing, but also seem to be a better reflection of nature (Lilienfeld et al., 2013). Notwithstanding, serious concerns have been raised. First, determining the appropriate cut point on these dimensions is critical in terms of determining true psychopathology. If the bar is set too low, there is a danger of pathologizing normal behavior. If set too high, those who need treatment may be excluded and denied services. At this point, data suggest that at least for autism spectrum disorder and substance use disorder, the bar might be set too high. For both, *DSM-5* criteria tend to miss people on the more benign end of the spectrum. For example, those who formerly might have been diagnosed with mild to moderate Asperger's, pervasive developmental disorder NOS, or substance abuse may no longer qualify for a diagnosis (Beighley et al., 2013; Mayes, Black, & Tierney, 2013; Peer et al., 2013; Proctor, Kopak, & Hoffmann, 2013). On the other hand, Frances (2013) has suggested that the threshold for somatic symptoms disorder is set too low, pathologizing many with normal worry about their medical illnesses.

A second concern is that lumping mild and more severe disorders into a unitary spectrum disorder can have unintended social effects, especially for people on the more benign end of the spectrum. For example, those who formerly were diagnosed with Asperger's disorder will now be labeled with autism spectrum disorder. A college student who was diagnosed with alcohol abuse using *DSM-IV-TR* criteria will now carry the same diagnosis as someone who is considered an alcoholic and dependent (Frances, 2013). One unanswered question is the impact of these types of name changes on perceived stigma and consequent help seeking.

A final concern is that the dimensional measures were released prematurely without adequate testing and without sufficient guidelines for their use (Jones, 2012; Paris, 2013). While some of the measures are well established (e.g., Patient Health Questionnaire [PHQ]-9; APA, 2014), others have little to no psychometric support (e.g., Clinician-Rated Severity of Autism Spectrum and Social Communication Disorders). Scoring guidelines are made available, but information about the measure's psychometric properties and norming are lacking. There also is no information on who is qualified to use these measures and what type of training

they should have. Thus, while dimensionality may be an important innovation in the development of the *DSM* classification system, there are significant challenges ahead in calibrating these dimensions, refining the measures and considering social consequences.

Clinical Implications

Will dimensionality help or hinder the diagnostic process? On one level, the additional information about the condition may shift counselors' fundamental way of thinking about treatment from "curing" clients (dichotomous) to helping them move toward more optimal points on the spectrum (dimensional). The availability of dimensional measures has the potential of improving diagnostic accuracy and providing a measure of treatment outcome (Segal & Coolidge, 2007). It may open the door to more measurement-based care, in which these ratings can be used to assess more precisely the need for care and the extent to which clients are profiting from treatment. This process may be more feasible to administer, score and record if these measures can be stored on tablets or mobile applications.

In terms of using these dimensional measures, however, the unanswered question is—at what cost? Clinicians are already busy, and anything that encumbers that process even more will be resisted (Paris, 2013). Criteria sets are now a bit more complex to navigate because of the added severity rating and feature specifiers. It will take considerable time to learn and master the range of measures that have been posted online, much less research their psychometric appropriateness for the situations in which they will be used. The wild card is whether managed care will require these types of measures as a way of documenting need for treatment and response to provided services. At this point, clinicians would be best served to proceed cautiously, ensuring that the measures they use are reliable and valid for the client population intended.

The New Organization of *DSM-5*

How was it decided in previous editions of the *DSM* which chapters to include and which disorders to place in each of them? While some research guided this process, tradition and clinical consensus were the primary sources that informed the organization of these earlier manuals (First & Tasman, 2004; Regier et al., 2013; Widiger, 2005). *DSM-5* took a radically different approach, drawing upon research that examined how disorders actually cluster together. In this section, the new framework is examined and potential benefits and costs discussed.

Innovation

The *DSM-5* manual is divided into three major sections. Section I provides an introduction, a discussion of key concepts such as the definition of a mental disorder, and guidelines for recording a diagnosis. Section II is the meat of the manual and contains all the mental disorders and other conditions that can be coded with their diagnostic criteria and background information. Section III includes tools for enhancing the diagnostic process, such as some of the dimensional measures discussed earlier, the WHODAS 2.0, and a Cultural Formulation Interview designed to assess the impact of culture on the clinical presentation. This section also includes a list of proposed mental disorders that require further study (e.g., Internet gaming disorder) and an alternative system for diagnosing personality disorders.

Table 1 lists *DSM-5*'s major categories (chapters) of mental disorders. Two general principles determined the sequence of chapters and the placement of disorders within chapters. First, disorders were grouped into similar clusters based upon shared underlying vulnerabilities, risk factors, symptoms presentation, course and response to treatment (APA, 2013). Groups that are positioned next to each other share more commonalities than those placed further apart. For example, bipolar disorder follows schizophrenia spectrum because they share a number

of vulnerability factors (APA, 2013). Next to bipolar disorder is the chapter on depressive disorders. However, the sequence of chapters indicates that depressive disorders are more distantly related to schizophrenia spectrum. Next, internalizing disorders characterized by depression, anxiety and somatic symptoms are listed in adjacent chapters because of common risk factors, treatment response and comorbidity (APA, 2013). Externalizing disorders, noted by their impulsivity, acting out and substance use, are placed in the latter part of the manual.

Table 1

DSM-5 *Classification*

Sequence of Chapters in Section II
Neurodevelopmental Disorders Schizophrenia Spectrum and Other Psychotic Disorders Bipolar and Related Disorders Depressive Disorders Anxiety Disorders Obsessive-Compulsive and Related Disorders Trauma- and Stressor-Related Disorders Dissociative Disorders Somatic Symptom and Related Disorders Feeding and Eating Disorders Elimination Disorders Sleep-Wake Disorders Sexual Dysfunctions Gender Dysphoria Disruptive, Impulse Control, and Conduct Disorders Substance-Related and Addictive Disorders Neurocognitive Disorders Personality Disorders Paraphilic Disorder Other Mental Disorders Medication-Induced Movement Disorders and Other Adverse Effects of Medication Other Conditions That May Be a Focus of Clinical Attention

This shared commonality principle is also evident in the placement of disorders within chapters. As a result, a number of disorders have been transferred to different chapters. For example, *DSM-IV-TR*'s chapter on sexual and gender identity disorders contained sexual dysfunctions (e.g., premature ejaculation), paraphilias (e.g., exhibitionism) and gender identity disorder. Research showed that these three were not highly related, so they have been moved into different chapters, each of which is more proximally located to related disorders (APA, 2013). As another example, *DSM-IV-TR*'s anxiety disorders chapter has been divided into three separate chapters: anxiety disorders that are more fear-based (e.g. phobias); obsessive-compulsive and related disorders, which are characterized by preoccupations and repetitive behaviors (e.g., body dysmorphic disorder); and trauma- and stressor-related disorders. The latter is akin to a stress-response spectrum that ranges from severe reactions like PTSD to milder reactions characteristic of an adjustment disorder. It is hoped that these organizational changes will help clinicians locate disorders as well as identify related comorbidities (APA, 2013).

A second organizational principle is that the *DSM-5* framework reflects a life-span perspective, both across and within chapters. Neurodevelopmental disorders (e.g., autism spectrum disorder, attention-deficit/ hyperactivity disorder [ADHD]) are listed first because they typically emerge early in life. Schizophrenia spectrum disorders also frequently have antecedents that manifest themselves in childhood (APA, 2013). Next are disorders that usually appear in adolescence and early adulthood, such as bipolar disorders, depressive disorders and anxiety disorders. In the middle and back of the manual are disorders that emerge in adulthood or late adulthood, such as personality disorders and neurocognitive disorders (e.g., dementia related to Alzheimer's disease).

A developmental perspective also is infused into the organization of each chapter. *DSM-IV-TR*'s chapter on disorders of infancy, childhood and adolescence has been eliminated, and these disorders have been redistributed throughout the manual into relevant chapters. Each chapter is developmentally organized with disorders that emerge in childhood listed first, followed by those that appear in adolescence and adulthood. For example, oppositional defiant disorder and conduct disorder have been moved to the beginning of the chapter on disruptive, impulse control and conduct disorders. In addition, the criteria sets now include developmental manifestations of symptoms. For example, the ADHD criteria set includes both child and adult examples of the various symptoms. There also is an expanded section on development and course for each of the disorders, which explains how symptoms typically unfold over the life span. It is hoped that these types of changes will help clinicians recognize age-related manifestations of symptomatology (Kupfer et al., 2013; Pine et al., 2011).

The intent of the *DSM-5* initiative was to develop a more valid organizational structure grounded in research. In the end it also may help to uncover common etiological factors—the holy grail of classification efforts (Insel et al., 2010; Stein et al., 2013). Certainly, these changes will help with differential diagnosis. The organization provides a better map of the relationship between disorders and how the diagnostic landscape may change over the life span.

Limitations

The new organization of the *DSM-5* has been generally well received (Stein et al., 2013). One major concern that has been raised, however, is the decision to dismantle the chapter on child and adolescent disorders (Pine et al., 2011). Now there is not one place where the range of childhood disorders is listed. The neurodevelopment disorders—the remnant of the former child and adolescent chapter—is largely limited to disorders that manifest with early developmental delays and problems with language, learning, motor behavior, thinking or attention. Missing, however, are a broader range of behavior problems and anxiety disorders that the former chapter included. The problem is that many of these disorders can co-occur. For example, about 30–50% of children with conduct disorder have a specific learning disorder (Gintner, 2000). The wide separation of conditions such as these in the manual may interfere with accurate detection, especially among those who are not familiar with child and adolescent disorders.

Clinical Implications

Mental health counselors have a new organization to master. Anecdotally, probably one of the most common comments I hear about the new manual is, "Where do I find X now?" Understanding the new organization of the manual will require more than simply looking over the new structure. It will be critical to read the manual to understand why disorders were grouped in a particular chapter. Chapters that are either newly introduced in the manual or that were significantly altered will certainly need to be carefully reviewed. These include the chapters on neurodevelopmental disorders, obsessive-compulsive and related disorders, trauma- and stressor-related disorders, substance-related and addictive disorders, and neurocognitive disorders.

Importantly, the new *DSM-5* message is that the structure is designed to indicate relationships within chapters and between chapters. This is a different way of thinking diagnostically. For example, in considering possible diagnostic alternatives, the clinician can first ask this broad question: Is this on the internalizing or externalizing spectrum? If the condition seems more internalizing, then the possible chapters have been winnowed down, and progressively more specific questions can be asked to locate the disorder in the particular chapter. The organization also alerts the diagnostician that adjacent chapters may hold comorbid conditions or even unexplained subthreshold symptoms. To take advantage of this diagnostic aid, however, it will be critical for mental health counselors to learn their way around this new framework.

Conclusions

These conceptual changes define the new look of *DSM-5*. *ICD*'s consilience, dimensionality and the organizational restructuring have fundamentally transformed *DSM-5* into a 21st-century document that reflects the current state of knowledge in the mental health profession. The good news is that these changes may make the manual a better reflection of nature (i.e., research has shown it to be more valid) compared to previous editions. As a result, the way counselors diagnose and how they think about mental disorders is changing. Hopefully, such change will not only result in better care, but will also help researchers identify the deeper etiological substrates of mental disorders.

In science, progress also can have a dark side. While the *DSM-5* incorporates the latest research, the entire development process and critical review highlight the primitive state of knowledge in the profession. While the spectrums and dimensions will no doubt transform the way mental health professionals diagnose, at this point they are crude and may help certain client populations, but hurt others. Harmonization with the *ICD* will probably take the *DSM-5* to a broader audience of health providers. But it also further medicalizes the *DSM-5* and will steer it perilously close to a biologically-based classification system. It will be up to mental health counselors and allied mental health professionals to help correct the course and find the middle way exemplified in the biopsychosocial model. Until then, *DSM-5*'s advances will be tempered by these potential limitations.

References

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.
American Psychiatric Association. (2010). *Practice guideline for the treatment of patients with major depressive disorder* (3rd ed.). Retrieved from http://psychiatryonline.org/content.aspx?bookid=28&sectionid=1667485
American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.
American Psychiatric Association. (2014). *Online assessment measures*. Retrieved from

http://www.psychiatry.org/practice/dsm/dsm5/online-assessment-measures

Beighley, J. S., Matson, J. L., Rieske, R. D., Jang, J., Cervantes, P. E., & Goldin, R. L. (2013). Comparing challenging behavior in children diagnosed with autism spectrum disorders according to the *DSM-IV-TR* and the proposed *DSM-5*. *Developmental Neurorehabilitation*, *16*, 375–381. doi:10.3109/17518423.2012.760119

First, M. B. (2009). Harmonisation of ICD–11 and DSM–V: Opportunities and challenges. *The British Journal of Psychiatry*, *195*, 382–390. doi:10.1192/bjp.bp.108.060822

First, M. B., & Tasman, A. (2004). *DSM-IV-TR mental disorders: Diagnosis, etiology & treatment*. Chichester, England: John Wiley & Sons.

First, M. B., & Westen, D. (2007). Classification for clinical practice: How to make ICD and DSM better able to serve clinicians. *International Review of Psychiatry*, *19*, 473–481. doi:10.1080/09540260701563429

Frances, A. (2013). *Essentials of psychiatric diagnosis: Responding to the challenge of DSM-5*. New York, NY: Guilford Press.

Frances, A. J., & Widiger, T. (2012). Psychiatric diagnosis: Lessons from the DSM-IV past and cautions for the DSM-5 future. *Annual Review of Clinical Psychology*, *8*, 109–130.

Gintner, G. G. (2000). Conduct disorder and chronic violent offending: Issues in diagnosis and treatment selection. In D. S. Sandhu & C. B. Aspy (Eds.), *Violence in American schools: A practical guide for counselors* (pp. 335–351). Alexandria, VA: American Counseling Association.

Gintner, G. G., & Mears, G. (2009). Mental health counseling. In W. G. Emener, M. A. Richard, & J. J. Bosworth. (Eds.), *A guidebook to human service professions: Helping college students explore opportunities in the human services field* (2nd ed., pp. 154–165). Springfield, IL: Charles C. Thomas.

Goodheart, C. D. (2014). *A primer for ICD-10-CM users: Psychological and behavioral conditions*. Washington, DC: American Psychological Association.

Helzer, J. E. (2011). A proposal for incorporating clinically relevant dimensions into DSM-5. In D. A. Regier, W. E. Narrow, E. A. Kuhl, & D. J. Kupfer (Eds.), *The conceptual evolution of DSM-5* (pp. 81–96). Washington, DC: American Psychiatric Association.

Insel, T., Cuthbert, B., Garvey, M., Heinssen, R., Pine, D. S., Quinn, K., . . . Wang, P. (2010). Research domain criteria (RDoC): Toward a new classification framework for research on mental disorders. *The American Journal of Psychiatry*, *167*, 748–751. doi:10.1176/appi.ajp.2010.09091379

Jones, K. D. (2012). Dimensional and cross-cutting assessment in the *DSM-5*. *Journal of Counseling and Development*, *90*, 481–487. doi:10.1002/j.1556-6676.2012.00059.x

Kupfer, D. J., Kuhl, E. A., & Wulsin, L. (2013). Psychiatry's integration with medicine: The role of DSM-5. *Annual Review of Medicine*, *64*, 385–392. doi:10.1146/annurev-med-050911-161945

Lilienfeld, S. O., Smith, S. F., & Watts, A. L. (2013). Issues in diagnosis: Conceptual issues and controversies. In W. E. Craighead, D. J. Miklowitz, & L. W. Craighead (Eds.), *Psychopathology: History, diagnosis, and empirical foundations* (2nd ed., pp. 1–35). Hoboken, NJ: John Wiley & Sons.

Mayes, S. D., Black, A., & Tierney, C. D. (2013). DSM-5 under-identifies PDDNOS: Diagnostic agreement between the DSM-5, DSM-IV, and checklist for autism spectrum disorder. *Research in Autism Spectrum Disorders*, *7*, 298–306. doi:10.1016/j.rasd.2012.08.011

McCarron, R. M. (2013). The DSM-5 and the art of medicine: Certainly uncertain. *Annals of Internal Medicine*, *159*, 360–361. doi:10.7326/0003-4819-159-7-201310010-00688

Paris, J. (2013). *The intelligent clinician's guide to the DSM-5*. New York, NY: Oxford University Press.

Peer, K., Rennert, L., Lynch, K. G., Farrer, L., Gelernter, J., & Kranzler, H. R. (2013). Prevalence of DSM-IV and DSM-5 alcohol, cocaine, opioid, and cannabis use disorders in a largely substance dependent sample. *Drug & Alcohol Dependence*, *127*, 215–219. doi:10.1016/j.drugalcdep.2012.07.009

Pine, D. S., Costello, E. J., Dahl, R., James, R., Leckman, J. F., Leibenluft, E., . . . Zeanah, C. H. (2011). Increasing the developmental focus in DSM-5: Broad issues and specific potential applications in anxiety. In D. A. Regier, W. E. Narrow, E. A. Kuhl, & D. J. Kupfer (Eds.), *The conceptual evolution of DSM-5* (pp. 305–321). Washington, DC: American Psychiatric Publishing.

Proctor, S. L., Kopak, A. M., & Hoffmann, N. G. (2013). Cocaine use disorder prevalence: From current DSM-IV to proposed DSM-5 diagnostic criteria with both a two and three severity level classification system. *Psychology of Addictive Behaviors*. Advance Online Publication. doi:10.1037/a0033369

Regier, D. A., Kuhl, E. A., & Kupfer, D. J. (2013). The DSM-5: Classification and criteria changes. *World Psychiatry*, *12*,

92–98. doi:10.1002/wps.20050

Segal, D. L., & Coolidge, F. L. (2007). Structured and semistructured interviews for differential diagnosis: Issues and applications. In M. Hersen, S. M. Turner, & D. C. Beidel (Eds.), *Adult psychopathology and diagnosis* (5th ed., pp. 79–100). Hoboken, NJ: John Wiley & Sons.

Stein, D. J., Lund, C., & Nesse, R. M. (2013). Classification systems in psychiatry: Diagnosis and global mental health in the era of DSM-5 and ICD-11. *Current Opinion in Psychiatry*, *26*, 493–497. doi:10.1097/YCO.0b013e3283642dfd

Tsai, L. Y., & Ghaziuddin, M. (2014). DSM-5 ASD moves forward into the past. *Journal of Autism and Developmental Disorders*, *44*, 321–330. doi:10.1007/s10803-013-1870-3

Vieta, E., & Valentí, M. (2013). Mixed states in *DSM-5*: Implications for clinical care, education, and research. *Journal of Affective Disorders*, *148*, 28–36. doi:10.1016/j.jad.2013.03.007

Welch, S., Klassen, C., Borisova, O., & Clothier, H. (2013). The *DSM-5* controversies: How should psychologists respond? *Canadian Psychology*, *54*, 166–175. doi:10.1037/a0033841

Widiger, T. A. (2005). Classification and diagnosis: Historical development and contemporary issues. In J. E. Maddux & B. A. Winstead (Eds.), *Psychopathology: Foundations for contemporary understanding* (pp. 69–91). Mahwah, NJ: Lawrence Erbaum Associates.

World Health Organization. (1979). *International statistical classification of diseases and related health problems* (9th rev.). Geneva, Switzerland: Author.

World Health Organization. (1992). *International statistical classification of diseases and related health problems* (10th rev.). Geneva, Switzerland: Author.

World Health Organization. (2010). *International statistical classification of diseases and related health problems* (10th rev.). Retrieved from http://apps.who.int/classifications/icd10/browse/2010/en

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