The Diagnostic and Statistical Manual of Mental Disorders: Fifth Edition (DSM-5) Model of Impairment

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The Diagnostic and Statistical Manual of Mental Disorders (DSM) is the leading reference within the United States for establishing accurate diagnosis of mental health syndromes and is considered a medical classification system (American Psychiatric Association [APA], 2013, p. xli, 10). A wide variety of professionals including counselors, forensic specialists, nurses, physicians, psychiatrists, psychologists, rehabilitation therapists, and social workers utilize the DSM to facilitate assessment of symptoms within their clinical practice. The manual also crosses multiple disciplines including biological, behavioral, cognitive, and psychodynamic orientations in understanding mental health. By design, the DSM is intended to provide a common nomenclature for researchers, practitioners, and public health agencies serving the needs of individuals with mental health diagnoses across a range of settings from inpatient hospital treatment to outpatient clinics and private practice.

The stated goals of this manual include providing an education reference, a guide for practice, and a mechanism for epidemiological studies as well as national morbidity data collection (APA, xii). The DSM acknowledges that disorders can have overlapping symptomology and variation is evident between individuals' manifestations of symptoms even for the same disorder, thus notes that boundaries between

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S. Goldstein, J.A. Naglieri (eds.), *Assessing Impairment*,
DOI 10.1007/978-1-4899-7996-4_8

disorders may be porous (p. 6). The operating DSM definition for a mental disorder is:

> A mental disorder is a syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning. Mental disorders are usually associated with significant distress or disability in social, occupational, or other important activities. An expectable or culturally approved response to a common stressor or loss, such as the death of a loved one, is not a mental disorder. Socially deviant behavior (e.g., political, religious, or sexual) and conflict that are primarily between the individual and society are not mental disorders unless the deviance or conflict results from a dysfunction in the individual, as described above (p. 20).

The DSM's ability to establish a common taxonomy for research has both national and international implications for identifying early risk factors, understanding prognosis, and validating the efficacy of treatments. The organizers of the DSM manual have sought to achieve these purposes by a rigorous effort to provide clear and explicit criteria for diagnosis (APA, 2013). The goals of this chapter include a brief review of the 60-year development of the DSM as it has evolved in addressing these directives and discussion of important applied clinical implications for the assessment of impairment. In addition, limitations in the DSM criteria for diagnosing are considered. Lastly, an overview of the World Health Organization (WHO) family of international classifications is provided. The WHO international classification system predates the DSM and the two are used in tandem for tracking national mental health data. In fact, there has been an increasing alignment between the two systems overtime. The WHO also provides a model of integrating three classification systems that distinctly addresses diagnosis, functioning, and intervention relevant to ameliorating impairment.

8.1 History of the Development of the DSM

8.1.1 DSM-I (APA, 1952) and DSM-II (APA, 1968) Editions

An early impetus for the establishment of the DSM as a classification system was the need to collect statistical data on mental illness in America (APA, 2000). This need dates back to as early as 1840 when the United States government first included the category of insanity/idiocy on the national census. Over the following decades, a more detailed categorization system was established. In 1917, the forerunner of the American Psychiatric Association collaborated with the New York Academy of Medicine to develop a nomenclature system. The system would not only be used for the purpose of statistical collection, but also for diagnosing severe psychiatric and neurological disorders in inpatient populations. After World Wars I and II, the need for a broader classification system that could be utilized in diagnosing less debilitating psychiatric illnesses in outpatient populations became evident. This was a result of the prevalence of veterans and other service members who demonstrated

manifestations of exposure to trauma, such as acute stress, and psychosomatic or personality disorders. A need existed to develop a common language to diagnose these disorders and also to maintain accountability records that documented types of impairments treated and frequency and duration of services required.

In 1952, the American Psychiatric Association responded to this need by establishing the first version of the Diagnostic and Statistical Manual of Mental Disorders (DSM-I; APA, 1952), a variation of a similar system that had been utilized internationally (the International Statistical Classification of Diseases and Related Health Problems—6th Edition [ICD-6]; World Health Organization [WHO], 1948). The DSM-I was unique in that it was the first official manual developed with the primary purpose of clinical diagnostics, as opposed to a sole focus on statistical utility, hence leading to the terms *diagnostic* and *statistical* in the name of the manual. The original version of the DSM largely reflected a psychobiological view of mental disorders, in which mental illnesses were perceived as *reactions* to internal and external factors. The manual contained descriptions of various psychiatric categories of illness for adults, but described few categories of illness specific to children. The DSM was organized into three categories (i.e., organic brain syndromes, functional disorders, and mental deficiency) with 106 subcategories (Kessler, 1971). Although the manual made an important contribution to acknowledging mental health syndromes, it was criticized for providing vague criteria for disorders that made diagnosis assessment unreliable. This lack of specificity resulted in only moderate agreement rates among diagnosticians (Ward, Beck, Mendelson, Mock, & Erbaugh, 1962).

The DSM-II was published in 1968 and corresponded with the publication of the eighth version of the ICD (WHO, 1968). The major deviation in the second manual from the first was the elimination of the term *reaction* throughout the manual, thus demonstrating a theoretical change in the basis of the classification system. Symptoms were presented in a narrative form and clinicians had the option of diagnosing based on the client's current symptoms or the client's perceived unconscious processes. The emphasis on unconscious processes was a result of influences from psychoanalytic theory (Mash & Barkley, 2003). Unfortunately, given the wide range of clinicians' interpretations of patients' *perceived* unconscious processes, the manual did not improve upon the vague diagnostic definitions and failed to lead to increased consistency in diagnoses among clinicians (Spitzer & Fleiss, 1974).

8.1.2 DSM-III (APA, 1980) and DSM-III-R, (APA, 1987) Editions

In 1974, APA undertook the arduous process of developing a major revision of the second manual. The DSM-I and DSM-II were short and more closely resembled pamphlets than manuals; the third edition of the DSM was increasingly complex and more closely resembled a text. The third edition of the manual, published in 1980, also improved upon the earlier versions by providing diagnostic criteria symptom lists for specific mental illnesses. Thus, a more neutral approach to describing the development and manifestations of syndromes was adopted. Following much criticism of the DSM-II's narrow assessment perspective, a

Table 8.1 Multiaxial assessment system-DSM—III

Axis	Information reported
Axis I	Clinical disorders and disorders usually first diagnosed in infancy, childhood, or adolescence (i.e., delirium, dementia, amnestic, and other cognitive disorders; mental disorders due to a general medical condition; anxiety, somatoform, factitious, dissociative, sexual and gender identity, eating, sleep, adjustment, and impulse-control disorders not elsewhere classified; and other conditions that may be a focus of clinical attention)
Axis II	Personality disorders (i.e., paranoid, schizoid, schizotypal, antisocial, borderline, narcissistic, avoidant, dependent, obsessive-compulsive, and personality disorder not otherwise specified) and mental retardation
Axis III	General medical conditions (e.g., infectious/parasitic diseases, neoplasms, diseases of the nervous system and sense organs, complications of pregnancy, childbirth, and the puerperium, injury and poisoning)
Axis IV	Psychosocial and environmental problems (i.e., problems with primary support group, problems related to the social environment, educational, occupational, housing, economic, problems with access to health care services, problems related to interaction with the legal system/crime, and other psychosocial and environmental problems)
Axis V	Global Assessment of Functioning

multiaxial diagnostic system was introduced in the third edition (DSM-III) and remained in place for the fourth edition of the DSM as well.

Multiaxial assessment system. The multiaxial diagnostic system contained five axes (listed in Table 8.1) that were each associated with an independent domain of functioning for the individual. The overall goal of the multiaxial system was to provide a useful format for organizing multiple components of the patient's condition. This approach allowed for the inclusion of psychosocial, environmental, and daily functioning domains that may be overlooked or minimized if the diagnostician is only concerned with just reviewing a symptom list. The multiaxial system also prompted clinicians to consider the individual differences between persons within the same diagnostic categories (APA, 1987). The domains were considered useful when matching treatment options to impairment domains.

Axis I was utilized to report both the name and code number for any clinical disorder(s) or other condition(s) requiring clinical intervention in the classification system (except for mental retardation and personality disorders). Personality Disorders and Mental Retardation were reported under Axis II (see Table 8.1). On both Axes I and II, it was acceptable to list more than one disorder when comorbidities were present. If an Axis II disorder was the primary diagnosis for the person, that was indicated after the listing for the diagnosis by denoting "principal diagnosis" in parenthesis. In cases where there was no Axis II diagnosis, the clinician listed the appropriate code to indicate no diagnosis or deferment of a diagnostic decision.

The patient's general medical status was reported along Axis III. Only medical conditions that were relevant to the person's current functioning in relation to the mental illness(es) were listed in Axis III. The purpose of inclusion of medical factors was to promote communication among health care providers and to encourage

clinicians to conduct a thorough assessment recognizing that there is a bi-directional relationship between psychological and physiological functioning (APA, 1987). In many patients, the presence of a medical illness can impair psychological functioning (for a review see Boekaerts & Röder, 1999) and, conversely, a mental illness can contribute to complications with medical conditions (for a review see Balon, 2006). The documentation of dual medical/mental health diagnoses is particularly important for prognosis and treatment decisions in neuropathological disorders that may include degeneration characteristics (e.g., Alzheimer's Disease, Parkinson's Disease). This is also true for neurodevelopmental disorders of children (Goldstein & Reynolds, 1999; Lezak, 1995). In situations when a patient's medical condition or injury is the underlying mechanism for the development of a mental illness (e.g., Traumatic Brain Injury or when a seizure disorder causes neurological damage that results in amnesia), the primary diagnosis was listed in Axis I (Mental Disorder due to a General Medical Condition) and the medical condition was specified in both Axis I and Axis III.

Axis IV was reserved for recording environmental and psychosocial events that may negatively impact a person's functioning, treatment, or prognosis (see Table 8.1). Multiple events could be listed in that domain, but usually only those that had relevance within the past year were included (e.g., helping a client process the loss of a friend). Finally, the patient's overall level of functioning during a given time period was recorded on Axis V. On this axis, the clinician used clinical judgment to provide an indication of the patient's symptom severity and impairment of functioning utilizing the Global Assessment of Functioning (GAF) scale provided in the DSM for coding (APA, 1987; Yamauchi, Ono, Baba, & Ikegami, 2001). The GAF ratings were an estimate of the degree to which the patient's diagnoses along the previous four axes impaired the ability to engage in skills and behaviors necessary for daily living across three domains (psychological, social, and occupational/educational). The predominant purpose of the GAF was to consider the patient's symptom severity and functioning to provide an indication of the need for treatment intensity and as a measure of progress monitoring (Endicott, Spitzer, Fleiss, & Cohen, 1976; First, 2004; Gamst, Dana, Der-Karabetian, & Kramer, 2004; Woldolf, 2005).

The DSM-III multiaxial structure changes led to a significant overall increase in interrater diagnostic agreement for adult disorders (Spitzer, Forman, & Nee, 1979). Another advancement provided by the DSM-III was the inclusion of more childhood and adolescent diagnostic categories than the DSM-II. However, unlike the adult categories, the child/adolescent criteria were not as well-established, and therefore, did not lead to a significant improvement in diagnostic agreement between clinicians at that time (Mattison, Cantwell, Russell, & Will, 1979).

Descriptions of each diagnostic disorder in the DSM-III also included information on age of symptom onset, etiology, course, sex differences, associated features, and differential diagnoses. Most notably, behavioral and cognitive manifestations of the symptoms of each illness were described. This allowed clinicians to make more objective, yes-or-no decisions regarding patient diagnoses. The third edition (DSM-III-R) was revised in 1987 to clarify inconsistencies and errors in the DSM-III (APA, 1987).

8.1.3 DSM-IV (APA, 1994) and DSM-IV-TR, (APA, 2000) Editions

It has been widely argued that the publication of the DSM-III revolutionized clinical diagnosis of mental illnesses (McBurnett, 1996). However, the manual still had criticisms regarding the vague criteria of some categories of psychopathology and thus a fourth edition of the manual was necessary and preparation began in 1987. The resulting manual was formed utilizing the input of over 1000 professionals in various professions and 13 distinct work groups (APA, 2000) and published in 1994. The DSM-IV carried forward the multiaxial tradition of the DSM-III and retained the GAF scale with scores ranging from 0 to 100.

Each diagnostic category in the DSM-IV contained detailed and specific information to guide the diagnosis and educate the reader about the etiology and course of the diagnosis. Several broad categories of information were systematically included for each diagnostic category including Diagnostic Features, Associated Features and Disorders, Specific Age, Gender, and Culture Features, Prevalence, Course, Familial Patterns, and Differential Diagnoses. In addition, some categories also included information about subtypes and specifiers and the procedures for recording that information.

Subsequently, the DSM-IV-Text Revision (DSM-IV-TR; APA, 2000) was published in 2000 to correct some factual errors in the DSM-IV and to add more current research for the listed conditions. The DSM-IV-TR contained the same disorders and symptoms lists in the DSM-IV as well as an appendix of the October 2000 updated International Statistical Classification of Diseases and Related Health Problems—9th Edition, Clinical Modification (ICD-9-CM) codes (National Center for Health Statistics, 1989). The ICD-9-CM is a clinical modification of the International Classification of Diseases: Ninth Revision (ICD-9). It was adapted by the United States National Center for Health Statistics to record additional morbidity data for US hospitals that was not represented in the ICD-9 system (APA, 2000; WHO, 1977). These codes were important as they could be utilized on Axis III of the DSM-IV-TR to note medical disorders that affect mental health issues, thus acknowledging the reciprocal interactive nature of some physical and mental health disorders. ICD codes are also important because they are required in some settings by agencies and insurance companies to acquire financial reimbursement for some services, including evaluation or rehabilitation. The codes for the tenth edition of the ICD (ICD-10) also were noted in a DSM-IV-TR appendix, although they were not yet implemented in the US (WHO, 1992). Finally, the DSM-IV-TR listed several mental conditions that were gathering increasing attention and research; therefore, might appear in the next DSM, edition five.

8.1.4 DSM-5 (APA, 2013) Edition

The publication of the DSM-5 in 2013 represents more than half a century of efforts since its first edition in 1952 to refine the definitions, characteristics, and diagnostic criteria of mental illness. The development process began in 1999 with efforts to

organize the procedures. In 2007, multiple scholars formed the DSM task force and set about the process of formulating 13 work groups to address proposed DSM-5 revisions over the next 2 years. In 2010, field trials began in large academic medical centers as well as routine clinical practices. Following the input and work of 400 professionals, as well as public comment opportunities, a final draft of the manual was approved by the APA Board of Trustees in 2012 and published in 2013 (APA, 2013; Kupfer, Kuhl, & Regier, 2013).

As with prior versions, the DSM-5 discusses the manual's basic format in Section I. However, Section II advances significant changes in both the structure of the manual and parameters for some specific diagnoses. Among the more salient changes is a move away from the multiaxial systems of classification utilized for the DSM-III and DSM-IV editions as prior critique of these versions had brought into question both the reliability and the validity of the multiaxial approach (Hilsenroth et al., 2000; Moos, McCoy, & Moos, 2000; Moos, Nichol, & Moos, 2002; Startup, Jackson, & Bendix, 2002). Additionally, the use of the GAF received significant negative reviews, thus also was dropped from the DSM-5 version (Moos et al., 2002; Pearsma & Boes, 1997; Söderberg, Tungström, & Armelius, 2005; Swartz, 2007). In contrast to DSM-IV, the DSM-5, Section II, arranges 22 chapters (see Table 8.2) based on a lifespan approach, thus keeping disorders that emerge in childhood in the beginning chapters with a neurodevelopmental perspective and organizing disorders that appear in adulthood toward the end of the manual with a neurocognitive perspective (APA, 2013, p. xlii). A second purpose of the reorganization of disorders is to better correspond with the pending publication of the ICD-11 (p. xli, 11).

Table 8.2 DSM-5 Section II—diagnostic criteria and codes

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 disorder's
Sleep-wake disorders
Sexual dysfunctions
Gender dysphoria
Disruptive, impulse-control, and conduct disorders
Substance-related and addictive disorders
Neurocognitive disorders
Personality disorders
Paraphilic disorders
Other mental disorders
Mediation-induced movement disorders and other adverse effect of medication
Other conditions that may be a focus of clinical attention

Section III of the text includes discussion of emerging assessment measures, cultural formation considerations, an alternative DSM-5 model for personality disorders, and conditions for further study. The assessment measures discussed (pp. 733–736) note that there are limitations to categorical approaches to diagnosis given that individuals may not present with symptom clusters that exactly match a DSM-provided criteria, symptoms present in differing severity/frequency across individuals with the same syndrome, and overlap or comorbid symptomology is not rare. The authors also note that this lack of specificity may result in over-usage of the not-otherwise-specified (NOS) diagnoses found in prior versions of the DSM. Therefore, measurements are discussed in lieu of a dimensional perspective to diagnosis.

Dimensional measurement often utilizes self-reported descriptions of symptoms, but also can use ratings or surveys. The DSM-5 discusses cross-cutting symptom measures that review important pathology by domains and offers two levels of forms; adult and child versions that can be used by practitioners. A self-report measure of disability offered through the World Health Organization also is reviewed and a sample protocol is provided. All of the forms for the measures discussed in this section are publically available at www.psychiatry.org/dsm5 for download. The cultural formation portion of section III provides a definition of culture, race, and ethnicity as well as outlines of cultural identity of the individual, cultural conceptualization of distress, psychosocial stressors and cultural features of vulnerability and resilience, cultural features of the relationship between the individual and the clinician, and an overall cultural assessment (pp. 749–759). Additionally, a detailed description of a cultural formation interview (CFI) is provided. Although Section II of the DSM-5 presented chapters on specific current criteria for personality disorders, Section III also discusses a new approach for diagnosis of several of these including antisocial, avoidant, borderline, narcissistic, OCD, and schizotypal (pp. 761–781), which acknowledges a functioning and pathological traits perspective. A new diagnosis of personality disorder that is trait-specified (PD-TS) is presented. The final portion of Section III provides proposed diagnostic criteria, for several new syndromes that are being researched and under consideration (e.g., attenuated psychosis syndrome, persistent complex bereavement disorder, caffeine use disorder, internet gaming disorder, nonsuicidal self-injury). These disorders may appear in subsequent revisions of the DSM if research establishes their validity (pp. 783–806).

The appendices offer listings of the ICD-9-CM and ICD-10-CM codes corresponding with DSM-5 diagnoses and are often used for insurance billing purposes as well as statistical data collection by hospitals. US reporting standards require changing the use of the ICD-10-CM codes as of October 1, 2014 (APA, 2013, p.839). Additionally, there is an appendix of cultural concepts of distress to make clinicians aware of syndromes that may be expressed by clients from diverse backgrounds. As an example, Kufungisisa translated as “thinking too much” reflects distress associated with headache and dizziness when thoughts are preoccupied with life stressors. This syndrome and similar components are found in Shona and

Nigerian cultures. Thus, practitioners serving individuals from these cultures may find this information enhances clinical understanding of these patients' perceptions and expressions of distress. This section coupled with the cultural formation portion of Section III of the DSM-5 offers additional resources in promoting professional considerations for cultural factors in diagnoses.

Diagnostic criteria and codes. Although there is some variation, the diagnostic criteria chapters within Section II are generally formatted similarly. They start with a Diagnostic Criteria box that delineates specific symptoms, sometimes including the age of onset, as well as duration and frequency of symptoms. This box also may contain coding notes and specifier codes. For example, the Diagnostic Criteria for Intellectual Disability (APA, 2013, p. 33) indicates onset must occur during the developmental period and both intellectual functioning and adaptive functioning deficits must be present. Additionally, the criteria include coding notes for the ICD-9-CM and alerts practitioners to the fact that the ICD-10-CM code requires new specifiers (i.e., mild, moderate, severe, profound). When specifiers for severity are indicated, the DSM-5 provides detailed descriptors to assist examiners in determining which code is most appropriate.

Diagnostic features. The Diagnostic Features text is found in each chapter following the Diagnostic Criteria and provides information about the defining characteristics of a disorder and describes the features that are usually consistent with the disorder. Symptoms described in this section are essential for making the diagnosis. In addition, illustrative examples are often provided. Again using the example of Intellectual Disability, the diagnostic features portion indicates the exact score ranges that meet criteria for a deficit in intellectual functioning (i.e., approximately two standard deviations below the mean, APA, 2013, p. 38).

Associated features supporting diagnosis. The associated features section includes information related to the descriptive clinical features of a disorder that are nonessential for diagnosis. For example, the Associated Features and Disorders section under Intellectual Disability diagnosis lists possible difficulties with self-management of behavior and interpersonal relationship, although this is not a symptom that must be present for diagnosis. Also reported in this section are any associated physiological and/or anatomical laboratory findings that can be (a) used for diagnosis; (b) associated with the disorder, but not necessary for diagnosis; or (c) are related to complications with the disorder. For example, under the diagnostic criteria for Alcohol Intoxication it is noted that the presence of "very high blood alcohol levels (e.g., 200/300 mg/dL) can cause inhibition of respiration and pulse and even death (p. 498).

Prevalence. One of the purposes of the manual is to provide a forum by which to communicate statistical information regarding the prevalence of mental disorders. This section meets this goal by presenting statistical information related to the prevalence of the specific diagnostic disorder and is included for all diagnostic

categories. Increasing trends in national identification rates as well as differing gender and age manifestations also may be noted.

Development and course. The information included in the Development and Course section under each diagnostic category describes the lifetime patterns and prognosis related to the mental disorder. The typical age and nature of onset is depicted, as is the recurring nature of the disorder. For example, this section will describe whether a specific diagnosis is episodic (it occurs occasionally and is marked by periodic absence of symptoms) or continuous (untreated symptoms remain present). The length of each duration of episodes and likelihood for recurrence are also recorded. Additionally, the section may discuss differing trajectories based on associations with genetic syndromes or other factors.

Risk and prognostic factors. Finally, the prognosis of symptom severity (e.g., worsening, alleviating) over time is also indicated. Information on genetic, physiological, and environmental influences may be provided depending on the disorder. This knowledge is valuable in treatment planning as well as educating the patient or guardians on the long-range implications for managing symptoms.

Culture-related diagnostic issues. Information included in this section communicates the variability of the diagnostic features and prevalence of the disorder that may be due to demographic and cultural differences among patients. This section also reminds professionals of the importance of cultural formation knowledge and sensitivity during any assessment.

Gender-related diagnostic issue. The manual also indicates any gender differences in prevalence or diagnostic features (or the lack of gender differences), when relevant. For example, under Separation Anxiety Disorder, it is noted that girls have higher rates of school avoidance than boys, although indirect fear characteristics may be more prevalent for boys with the disorder (APA, 2013, p. 193).

Diagnostic markers. The required components of a thorough assessment are mentioned in this section and may include intelligence, adaptive, academic, or personality measures as well as known metabolic screening or neuroimaging evaluation methods.

Differential diagnosis. Some disorders have overlapping symptoms or yield similar symptoms to one another. In addition, some symptoms are a result of physical health conditions rather than mental health diagnoses. Therefore, this section is included to provide the clinician with information regarding how to make decisions about diagnosis that rule-out disorders with shared symptomology. Typically, specific examples of differentiating diagnoses are provided. As an example, the Differential Diagnosis section of the criteria for Attention-Deficit/Hyperactivity Disorder (ADHD) discusses 16 different diagnoses that can be misidentified as ADHD and therefore alerts examiners to distinguishing factors (APA, 2013, pp. 63–64). The

process of differentiating disorders is essential to avoiding misdiagnosis as well as increasing treatment efficacy. Some diagnoses also may have a section on Comorbidity, which specifies prevalence rates of diagnoses that often coexist.

DSM-5 Important diagnoses changes. Although many of the mental health diagnoses have long been established and continue to garner support (e.g., anxiety, depression), some have been changed from the DSM-IV to the new DSM-5 to reflect emerging research. The following list provides some of the changes highlighted by authors of the DSM-5 (APA, 2013, pp. 809–816). This listing is not intended to be comprehensive as the DSM-5 has 947 pages of complex diagnoses information.

- Mental Retardation was renamed Intellectual Disability adhering to the new common nomenclature addressed in public law and advocacy since the last publication of DSM (e.g., American Association of Intellectual and Developmental Disabilities, 2014).
- Communication Disorders were renamed (i.e., Language Disorder, Speech Sound Disorder, Social [Pragmatic] Communication Disorder)
- Autism Spectrum Disorder incorporates and replaces prior diagnoses of Asperger's Disorder, Childhood Disintegrative Disorder, Rett's Disorder, and Pervasive Developmental Disorder
- ADHD age of onset was changed to prior to age 12 and *subtypes* were replaced with "presentation" specifier terminology
- SLD combines the prior terms of *reading disorder, mathematics disorder, disorder of written expression, and learning disorder NOS* for specific learning disorder and a discrepancy between intelligence and achievement is not required for diagnosis
- Under the Depressive Disorders, a new diagnosis of Disruptive Mood Dysregulation Disorder is included, what used to be called dysthymia is now under Persistent Depressive Disorder, and the bereavement exclusion is removed from Major Depressive Episode.
- Under Anxiety Disorders, Specific Phobia and Social Anxiety remove the requirement that persons over 18 recognize that the anxiety is excessive
- The use of *not-otherwise-specified* (NOS) disorders are replaced with new terminology (e.g., other specified disorder and unspecified disorder)
- In addition to core review of Personality Disorders diagnoses, an alternative approach to some of these diagnoses is provided in the appendices
- Additionally, some criteria changes also are reflected in specific diagnostic categories (e.g., Schizophrenia [eliminated all subtypes—paranoid, disorganized, catatonic, undifferentiated, and residual], Obsessive-Compulsive and Related Disorders, Bipolar and Related Disorders, Trauma- and Stressor-Related Disorders [two former subtypes: Reactive Attachment Disorder and Disinhibited Social Engagement Disorder became diagnoses], 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, and Paraphilic Disorders)

The new DSM-5 has made significant changes that many scholars consider advancements in mental health diagnoses (APA, 2013; Kupfer et al., 2013). To summarize, those include a developmental lifespan organization strategy for chapters that emphasizes the genetic and biological origins of many disorders emerging in childhood as compared to those emerging later in life and reflecting a neurocognitive ethiology. This new strategy moves away from the problematic multiaxial system of classification as well as the use of the GAF. The inclusion of a section on measurement with multiple online tools (e.g., severity rating scales, disability measure) for general use by practitioners may also be considered innovative. Utilization of these scales has the potential to promote a more dimensional or quantitative approach to determining diagnosis in contrast to the prior categorical focus. Eliminating the NOS diagnosis is hoped to reduce overdiagnosing and new descriptors and tables of specifiers are perceived as improvements to clarifying severity of symptoms. The manual also offers additional resources when considering cultural factors through inclusion of an explanation for the cultural formation interview technique, availability of online cultural interview forms, and an updated Cultural Concepts of Distress appendix. Additionally, the text has offered revisions to diagnosis criteria across multiple diagnoses to better reflect emerging research findings.

8.1.5 DSM Limitations

As noted previously, the DSM has made advances in providing mental health professionals an important comprehensive guide to diagnoses. It has made significant changes with each edition and will continue to evolve as practice demands change and research informs treatment (Borstein, 1998; Watson, 2005; Widiger & Samuel, 2005). However, in looking forward to better serving the mental health needs for future patients, a number of limitations in the DSM structure also continue to be questioned (Greenberg, 2013).

Categorical approach. At this time, the new DSM-5 has introduced some dimensional measurement concepts, especially related to determining severity. This is evident in the new measurement section which offers cross-cutting symptom measures, access to the WHO Disability Assessment Schedule as well as more detailed descriptors of specifiers for some diagnoses including a few matrix examples (e.g., Intellectual Disabilities). However, the manual is still primarily a categorical approach and some scholars argue this assumes a disorder is either present or not, rather than perceiving symptoms on a continuum (e.g., low, at-risk, clinically significant). Disorders are presumed to be distinct from each other and from normal

functioning. The DSM also is based on a medical model of identifying pathology and assumes maladaptive functioning within the patient. Kupfer et al. (2013) note that in an age when medicine is able to define normal, at-risk, and high risk thresholds for disease (e.g., cholesterol, blood pressure), it stands to reason that the practice of psychiatry/psychology also has this capability. In fact, many norm-reference rating scales (e.g., Behavioral Assessment of Children [BASC], Reynolds & Kamphaus, 2004) exist that can define the frequency of reporting common mental health symptoms such as depression or anxiety and distinguish pathological from nonpathological levels. The use of more objectively defined criteria may assist diagnosis accuracy.

Comorbidities and symptom overlap. Comorbidities are common and can further complicate the distinctions between diagnoses, especially when there are overlapping symptoms (Aragona, 2009). In addition, there is variability of the clustering of symptoms within a diagnostic category. Thus, two patients with the same diagnosis may exhibit markedly different behavioral patterns. As an example, in both the older versions and the new DSM-5, Oppositional Defiant Disorder lists eight symptoms, four of which are required for a diagnosis. In this particular case, it is possible for two clients to both have ODD and not share even one of the eight symptoms. This heterogeneity among many disorders, as defined by the DSM, does not provide strong discriminate validity for differential diagnosis or presumed divergent etiologies for some disorders.

Some authors have suggested viewing mental health issues in alternative paradigms that acknowledge there is not always a clear boundary between normal and pathological and describe mental health functioning on a multi-dimensional spectrum (Ball, 2001; First, 2005; Krueger, Markon, Patrick, & Iacono, 2005; Sirgiovanni, 2009). Considerations have included a continuum from healthy to maladaptive functioning, distinguishing internalizing from externalizing symptoms, as well as defining diagnosis in terms of protective and vulnerability factors (Achenbach, 1985; Mash & Barkley, 2003; Widiger & Trull, 2007). Other authors argue for organization of mental health disorders based on the common biological underpinnings of brain function that are related to specific disorders (Jabr, 2013). It is suggested that these changes would also enhance the DSM by creating a more direct link from diagnosis to treatment. Currently, the DSM model does not offer guidance on treatment which is yet another criticism.

Traits versus states. A long-standing concern for the utility of the DSM has been that many diagnoses are made based on traits treated as static and stable when in fact personality traits change over time even among persons without mental disorders (Widiger & Trull, 2007). Some diagnostic criteria of impairment are merely states and not enduring traits (e.g., loss of appetite). These types of trait symptoms remain in the current DSM-5. The transient nature of states and traits can lower consistency in ratings over time. This approach has little emphasis on an ecological perspective that would include documenting the mental health hospitalizations examinating the

support networks of patients to better promote understanding of disabilities within a psychosocial context (Kerig, 2006; Mash & Barkley, 2003; Routh, 1990).

Variability in diagnostic assessment methods and data. Another issue inherent in DSM diagnosis is the variation among professionals in how they gather information to establish diagnostic criteria. In the absence of clear DSM guidance for types of data to collect, the type of assessment will depend on the orientation of the diagnostician. This results in considerable variation of testing measures and/or observation skills and the dependence on clinical judgment by the examiner. Not all patients within a diagnostic category will receive the same type of evaluation, thus decisions are being made with a wide variation in the rigor of diagnostic data. The assessment/diagnosis style of physicians, social workers, counselors, and psychologists as well as other mental health professionals may depend heavily on their particular training orientation. Kupfer et al. (2013) note that although the manual is written for psychiatrists and the new dimensional measures may assist them in moving toward less categorical and subjective diagnoses, a significant proportion of diagnoses are provided by other practitioners, often physicians. Patients generally first approach their primary care providers when experiencing distress and these professionals may not have training in the objective assessment of mental health disorders. Therefore, the inclusion of thresholds along a continuum from normal to pathology could improve the diagnostic accuracy for non-psychiatrists. Ultimately, a DSM with a strong emphasis on dimensional measurement could afford more accurate diagnoses across disciplines. The new DSM-5 does include some guidance on evaluation components on some diagnosis under the new Diagnostic Markers sections; however, this is generally quite brief, often one to two sentences, and broadly stated.

Best practices in psychological assessment require selection of instruments and methods that meet standards for reliability, validity, and fairness (American Educational Research Association, 1999). The DSM does not require this adherence through provision of guidance on assessment batteries or diagnoses techniques within its criteria for disorders. These choices are made by individual practitioners and therefore may vary across patients, settings, and disciplines. Training and credentialing standards address broad competencies in psychological services. In addition, there are a number of ethical and professional guidelines practitioners can reference for these decisions. They include *The Ethical Principles of Psychologists and Code of Conduct* (American Psychological Association, 2002a), *Code of Fair Testing Practices in Education* (American Psychological Association, 2003), *Professional Practice Guidelines for Psychotherapy with Lesbian, Gay and Bisexual Clients* (American Psychological Association, 2000), *Guidelines on Multicultural Education, Training, Research, Practice, and Organizational Change for Psychologists* (American Psychological Association, 2002b), *Responsibilities of Users of Standardized Tests* (Association of Assessment in Counseling, 2003), *and the Standards for Educational and Psychological Testing* (AERA, 1999). However, the DSM does not routinely and directly reference these standards in providing diagnostic guidance.

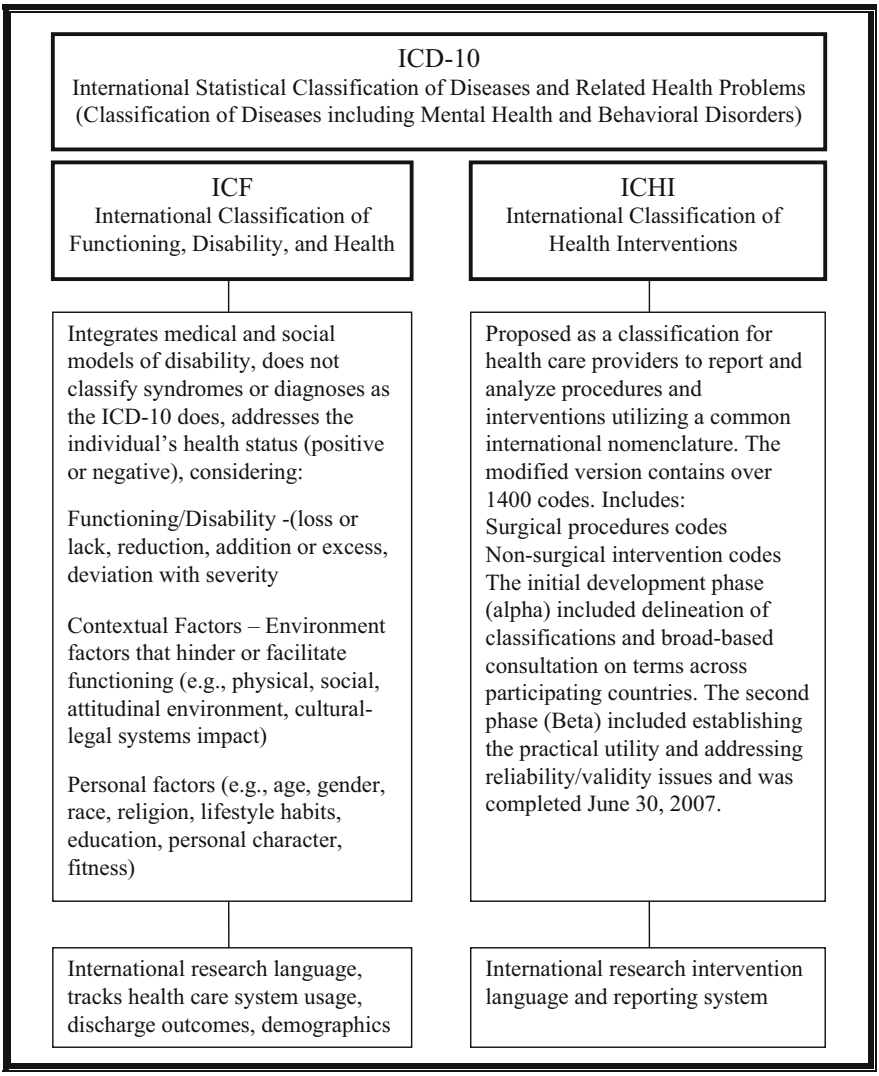
8.1.5.1 DSM Diagnosis with Children and Adolescents

Neglecting child and adolescent diagnosis. Another limitation of the DSM is the focus on criteria in adult terms. There is a lack of discussion of developmental norms, trajectories, and early emerging risk factors that make the use of the DSM especially problematic in the diagnosis of children and adolescents. This may be particularly important as the prevalence estimates for DSM-IV disorders were 46.4 % with onset for half of the disorders before age 14 and 75 % by age 24 (Kessler et al., 2005). Given the majority of mental health needs will manifest symptoms during the childhood through postsecondary age range, the need for more information on these disorders is important to practitioners serving this age range. Wodrich, Pfeiffer, and Landau (2008) note that practitioners serving this age range particularly need enhanced DSM information on the epidemiology, progression, as well as causes and treatments for childhood disorders. In an effort to address this need, the *Diagnostic and Statistical Manual for Primary Care* (DSM-PC) was created, although it has not enjoyed wide usage (Wolraich, Felice, & Drotar, 1997). A second system, the DC: 0–3 written by the Diagnostic Classification Task Force for the Zero to Three/National Center for clinical Infant Programs, provides diagnostic guidelines for infants through toddlers age three. A multiaxial system was designed to include primary diagnosis, relationship disorder classifications, medical and developmental disorders and conditions, psychosocial stressors, and functional emotional development (Zero to Three/National Center for Clinical Infant Programs, 1994).

8.2 World Health Organization Family of International Classifications: ICD, ICF, and ICHI

The DSM is a well-respected and important diagnostic instrument within the US mental health care system; however, it is not utilized in many other countries. In the DSM-5, an effort has been made to further align with the International Classification of Diseases (ICD) tenth edition including a requirement that diagnoses be coded for ICD-10 after October 2014. The ICD ninth edition codes are currently utilized by the National Center for Health Statistics and Centers for Disease Control and Prevention to track national health care data including mental health hospitalizations. The International Statistical Classification of Diseases and Health Related Problems (ICD-10) provides a universal framework for the diagnostic classification of disorders, diseases, and health conditions (see Box 8.1). In addition, the World Health Organization has addressed some of the limitations of utilizing a diagnostic classification manual to fully assess impairment and inform intervention (Madden, Sykes, & Ustun, 2007). The system provides three separate comprehensive manuals each addressing a distinct area; classification of diseases, classification of functioning, and classification of interventions. This section will briefly review the development of the ICD, merging trends between the DSM and ICD, as well as implications for a common classification and statistical data system.

Box 8.1: World Health Organization Family of International Classifications



8.2.1 History of the ICD

Systematic attempts to classify diseases and causes of death may have begun as early as the 1500s. Recovered portions of the London Bills of Mortality indicate records by parishes of births, christenings, and burials from 1592. These documents were utilized to make primitive mortality estimates and determine longevity as well as prevalent types of death. Causes of death included accidents (e.g., bit by mad

dog) and illness (e.g., scurvy, swinepox). In addition, a number of deaths were attributed to what may now be considered mental health issues (e.g., grief, lunatique). Rudimentary efforts were made to understand data patterns across groups and health issues for society as a whole. For example, a large number of abortive, stillborn, and childbed deaths noted the blight of young children. One particular record indicates only 64 out of 100 children remained alive at age six and only 25 still remained alive at age 26. Early pioneers in collecting and reviewing these data included John Graunt and Franciois Bossier de Lacroix (Stephan, 2007; WHO, 2007a, 2007b).

In 1853, the first International Statistical Congress initiated the preparation of a formal international classification system that could track morbidity data across countries. The work of William Farr and Marc d'Espine resulted in a rubric classification approach that was revised several times between 1864 and 1886. In 1893, the International Statistical Institute furthered this work by adopting Bertillon's Classification of Causes of Death, which included nomenclature from the English, German, and Swiss systems (see Table 8.3). The American Public Health Association later adopted Bertillon's classification in 1898 (WHO, 2007b).

The first international conference for the revision of Bertillon's classification, renamed the International List of Causes of Death (ICD-1), was held in 1900 with 26 countries participating. To acknowledge the importance of collecting data not just on death, but also illnesses and public health, a second classification system for diseases also was adopted. Subsequent conferences resulted in the second and third revisions (ICD-2 in 1909; ICD-3 in 1920). Fourth and fifth versions (ICD-4 in 1929; ICD-5, 1938) created more sophisticated statistical utility of the classifications and morbidity data system. In addition, the revisions included broader collaboration across experts and the International Statistical Institute shared responsibility for development with the Health Organization of the League of Nations.

Subsequent revisions have been completed under the oversight of the World Health Organization (ICD-6 in 1948; ICD-7, 1955; ICD-8, 1968; ICD-9, 1968; ICD-10, 2003) and the eleventh edition is pending with expected completion in 2015. Following publication of the ICD-9, the United States created a clinical modification (ICD-9-CM) of the codes (WHO, 1977) that was adapted by the United States National Center for Health Statistics to record additional morbidity data for US hospitals. The US Department of Health and Human Services directs all changes to the clinical modifications and updates are available annually (APA, 2000).

The DSM-5 appendices contain listings of both the ICD-9-CM and ICD-10 codes to facilitate hospital and agency data collection as well as some financial reimbursements. The inclusion of these general medical disorders permits DSM-5 diagnoses that acknowledge the interaction between some medical and mental health disabilities. The current DSM-5 codes and terminology were organized to correspond with Chap. 5 of the ICD-10, Mental and Behavioral Disorders, codes which are now utilized by many countries and will eventually be implemented in the US (APA, 2013).

Table 8.3 Comparison ICD/ICF and DSM development

ICD/ICF		DSM	
Bertillon classification of causes of death adopted—International Statistical Institute	1898	Convergent development of the DSM, ICD, and ICF	
ICD-1 International List of Causes of Death (also parallel classification of diseases)—International Statistical Institute	1900	Diagnostic models	
ICD-2 International List of Causes of Sickness and Death (also parallel classification of diseases)—International Statistical Institute	1910		
ICD-3 International List of Causes of Death—International Statistical Institute	1920		
ICD-4 International List of Causes of Death—International Statistical Institute and the Health Organization of the League of Nations	1929		
ICD-5 International List of Causes of Death—International Statistical Institute and the Health Organization of the League of Nations.	1938		
ICD-6 International List of Diseases and Causes of Death—World Health Organization	1948		
ICD-7 International Classification of Diseases—World Health Organization	1955		
ICD-8 International Classification of Diseases—World Health Organization	1968	1952	DSM-I, vague criteria focused on psychological "reactions"
ICD-9 International Classification of Diseases—World Health Organization	1975	1968	DSM-II, dropped term "reactions", add symptoms
ICD-9-CM International Classification of Diseases, Version 9, Clinical Modifications	1977	1980	DSM-III, explicit diagnostic criteria; multiaxial system
ICD-10 International Classification of Diseases—World Health Organization	1992	1987	DSM-III-R, clarified inconsistencies in DSM-III
ICF International Classification of Functioning, Disability and Health	2001	1994	DSM-IV, empirical support, data analysis, and field trials
ICD-10-CM	2003	2000	DSM-IV-TR, updated errors, ICD-9-CM/ ICD-10 codes
ICF—World Health Assembly (2001)			
ICD-11 (anticipated 2018)	2018	2013	DSM-V

8.2.2 Implications for ICF Framework in Assessing Function

Another important diagnostic tool, the International Classification of Functioning, Disability, and Health (ICF), is used in conjunction with the ICD-10 to identify health and health-related functioning levels. The ICF classifies functioning in the context of interactions between health characteristics or limitations and individual or environmental factors. This model suggests that a diagnosis or disability classification alone should not dictate the services provided and evaluation should directly inform treatment or intervention (Reed et al., 2005). In some ways, the ICF addresses limitation issues that have been presented regarding the DSM's lack of emphasis on specific functioning measurement and consideration for environmental context.

The ICF approach to determining treatment needs emphasizes a comprehensive analysis of the individual and his/her resources. The ICF coding provides a two-part evaluation documentation system that (1) considers components of body functions and structures with impact on activities and participation as well as (2) contextual factors. The emphasis on body functions delineates several aspects directly related to the work of psychologists. These include global mental functions, temperament, personality, attention, memory, and emotional functioning. In addition, body functions address sensory and neuromusculoskeletal functions related to physical impairments (e.g., vision). Atypical bodily functions may be considered impaired yet not problematic, if they do not diminish activities and participation in life functions. Analysis of activities and participation includes review of the individuals learning, knowledge application, communication, mobility, self-care, and interpersonal relationships. The ICF also requires practitioners to assess environmental factors that may impede or facilitate the individual's progress. This includes assistive products and technology, support relationships, attitudes, agency services, and public policies (Bruyere, Van Looy, & Peterson, 2005; Reed et al., 2005; WHO, 2001).

With the emphasis on simultaneous consideration for body function, activity level, and participation factors, the ICF model provides a synopsis of individual strengths and needs. The model acknowledges that a physical impairment may exist with or without a negative impact on performance depending on other facilitating factors. The model emphases that impairment's effect on performance is also subject to change over time. An understanding of this approach may enhance collaboration on treatment regimens for persons comorbid for both mental health and general medical disorders as it is used by many health professionals.

Recognition of the need to also classify and track intervention and treatment procedures has resulted in development of a third manual in the WHO classification systems. The International Classification of Health Interventions (ICHI) concept was first proposed in 1971 and field trials of a modified version were completed in June of 2007.

8.2.3 Integration of the DSM, ICD, and ICF

As the DSM and ICD codes become closer aligned and cross data systems are created, the utilization of a common international taxonomy has immense implications for understanding mental health issues across cultures, environments, and within differing medical systems. Analysis of these data has the potential to inform social policy, treatment, and research. Clinical implications include creating a common language for diagnosis and treatment that facilitates multidisciplinary collaboration. This is particularly important for persons with neurological impairments or comorbid disabilities as those cases require working in tandem with other service providers. Comparisons across differing health care systems in countries can serve to inform best practices in managed care. With the inclusion of the ICF emphasis on functional impact, issues such as the level of care, disability benefits, and work performance are also directly addressed in the diagnostic process. Research implications include creating a unified framework that permits an international database of mental health symptoms, treatment, and outcomes. Analyses of these data across nations can expand scientific knowledge to better inform etiology across the lifespan and across cultures.

8.3 Summary

The DSM provides a sophisticated and encompassing guide for the multifarious task of diagnosing mental disorders. It represents the combined expertise of a broad range of nationally and internationally recognized scholars and agencies. The metamorphosis from the original DSM-I with three major categories to the current DSM-5 with 22 categories reflects significant advances in mental health research. The relationship between the DSM and the assessment of impairment is important as most diagnoses are accompanied by some level of diminished functioning. Diagnostic categories also provide a plethora of information pertinent to projecting the course and prognosis for recovery. These data can be utilized in educating patients, as well as designing appropriate treatment supports to diminish impairment. However, as in the past, the DSM remains a work in progress and will no doubt continue to change. Revision issues of importance to the assessment of impairment include operationalizing behavioral descriptions of symptoms, as well as improved validity and reliability for measures of functioning. The inclusion of definitions of impairment that acknowledge severity, the role of culture, environmental factors or situational problems, adaptive behavior, and quality of life issues may also improve utility of the DSM. The progress of critique for the DSM-5 is well underway and no doubt will result in enhancements to the next version as science and policy continue to shape future understanding of mental health.

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