

Psychopathology and Classification

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Introduction

Psychopathology is a cognitive, emotional, behavioral or biological disorder within an individual that is associated with distress or impairment in functioning, and is not typical or culturally expected. A psychopathology, or mental disorder, is a multidimensional construct that depends on the individual's cultural and social context (Barlow, Durand, & Hofmann, 2016). The aim of this chapter is to give an overview of mental disorders as they are presently defined. We will first review the history of psychopathology, and how its classification has changed over the years. We will also discuss the cultural aspects involved in diagnosing psychopathology. Lastly, we will provide an overview of the main psychological disorders and culturally relevant aspects of their classification.

History of Psychopathology

Many unusual and strange behaviors used to be viewed as expressions of supernatural powers, such as evil spirits or the devil. This assumption caused people to turn to sorcery and violence to solve problematic behavior. In the fifteenth century the primary explanation of psychopathology turned from supernaturalism to theories of the moon's influence on the mind, as well as the removal of the "soul" from the body. Gradually, people began to agree on the existence of certain mental disorders, such as "hysteria." Unstable emotions began to be seen as consequences of these disorders, and systems of classification of disorders started to emerge. For example, the Swiss-German philosopher and physician, Paracelsus (1493–1541), is credited with starting the first

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system of classification. He distinguished four key groups of mental/behavioral disorders: *Lunatici*—reactions to phases of the moon; *Insani*—disorders present from birth or inherited from family; *Vesani*—disorders originating from consumption of contaminated food or drink; and *Melancholic*—poor temperament and ability to reason. The English scholar Robert Burton (1576–1640) extended this classification system, which separated madness (mania) from melancholy (see Millon & Simonsen, 2010).

During the eighteenth and nineteenth centuries, as clinics and hospitals began to record case histories and detailed observations of psychiatric patients, physicians began to identify syndromal groupings (i.e., clusters of symptoms) and classify them into disease entities. In addition, the growth of anatomical, physiological, and biochemical bodies of knowledge, as well as the nineteenth-century discoveries in bacterial and viral epidemiology, firmly established the disease concept of modern medicine, including the view of mental illness as a disease (Millon & Simonsen, 2010). As a result, thousands of people confined to dungeons of daily torture were released to asylums where medical forms of treatment began to be investigated.

Around the turn of the twentieth century, two new sources of inspiration contributed enormously to changes in the understanding and classification of psychopathology. The first was the German physician Emil Kraepelin (1856–1926), who is considered the founder of modern psychiatry. He hypothesized that specific symptom combinations occurring throughout the course of a psychiatric illness allowed for the identification of a particular mental disorder. He sought to bring order to symptom pictures and, most importantly, to patterns of onset, course, and outcome. Another major influence was Sigmund Freud (1856–1939). Freud's psychoanalytic approach to psychopathology was another major approach to understanding mental disorders. In contrast to Kraepelin's syndrome-based approach, Freud attempted to classify mental disorders based on etiology and specifically emphasized a person's early life experiences during childhood. Psychopathology was seen as a product of dysfunctional personality dynamics that evolving out of the manifold interactions between early life experiences, biological endowment, and intrapsychic conflicts (for review see Blatt & Luyten, 2010; Mitchell & Black, 2016). Psychoanalytic theory was the dominant approach to the classification and treatment of mental illness throughout the latter half of the nineteenth century and beginning of the twentieth century. Gradually, the new fields of behavioral and cognitive psychology began to use empirical methods to explore psychopathological constructs (as opposed to the case study approach favored by psychoanalytic or Neo-Freudian theorists). This movement brought along new definitions of mental disorders, considering symptoms of mental disorders as reflecting underlying dimensions (e.g., neuroticism), or discrete categories. However, regardless of whether mental disorders are considered dimensional or categorical, both approaches assume that symptoms reflect the presence of an underlying, unobserved, latent construct (e.g., Insel, 2014). This notion is currently being reconsidered. An alternative to the latent disease model is the *complex network* approach (Barabási, Gulbahce, & Loscalzo, 2011; Borsboom & Cramer, 2013; Hofmann, Curtiss, & McNally, 2016). Instead of assuming that symptoms arise from an underlying disease entity, this approach holds that disorders exist as systems of interrelated elements of a network. According to this view, emotional or behavioral

problems do not reflect an underlying latent disease that causes their emergence and co-occurrence. Instead, it is assumed that the network of the problems itself constitutes the disorder, and it is the interaction between these problems that give rise and maintain the disorder. For example, the complex network perspective does not assume that a stressful event activates an underlying entity called *depression*, which then causes the emergence of symptoms. Rather, it is assumed that stressful events activate certain problems (symptoms) that, in turn, activate other problems. Beyond studying the topography of a network, this approach might also be used to predict therapy outcome, relapse, and recovering by examining the network dynamics. Although highly promising, this approach will not be discussed in greater detail. Instead, we refer the reader to Hofmann et al. (2016).

Assessment of Psychopathology

Since the inception of psychopathological classification in the sixteenth century, different tools have been developed to determine whether a person's symptoms meet sufficient criteria to be characterized as a psychological disorder. Clinical assessment refers to the systematic evaluation and measurement of psychological, biological, and social factors in the individual. The process of clinical assessment and diagnosis are central to the study of psychopathology and, ultimately, to the treatment of psychological disorders.

The first systematic description of mental illness was not published until 1948, when the World Health Organization (WHO) added a section about mental health to its definition of health. Since then, many changes and developments have been made in this domain. Currently, the two predominant international diagnostic systems are the Diagnostic and Statistical Manual of Mental Disorders (DSM), first published in 1952 by the American Psychiatric Association (APA), and the WHO's chapter on mental disorders in the International Classification of Diseases and Related Health Problems (ICD). Both systems employ a categorical approach to classifying most psychiatric disorders, which ensures that researchers and clinicians around the world can make reliable and valid diagnoses. These diagnostic texts undergo revisions at irregular intervals, with the edition number appended to the title; to date, the most recent versions are the DSM-5, published in 2013, and the ICD-10, published in 1993.

The Diagnostic and Statistical Manual of Mental Disorders (DSM)

The publication of the first DSM (DSM-I) was motivated by increasing malcontent with the unstandardized and unreliable methods of assessment and diagnosis favored prior to the mid-twentieth century. Consequently, the APA formed the Committee on Nomenclature and Statistics, which set out to classify mental illnesses properly. The committee split all psychiatric illnesses into three categories

based on the psychoanalytic approach: Psychoses, Neuroses, and Character disorders. These categories were named but not described further, as the committee believed vague definitions were more clinically useful (Blashfield, Flanagan, & Raley, 2010). The DSM-II, published in 1968, added short descriptions of each disorder, but still kept everything very vague. This version yielded low diagnostic reliability, and was not used in countries other than the United States. The publication of the DSM-III in 1980 constituted a major change in the nosology of mental disorders. Whereas the previous two versions were primarily psychoanalytic in nature, this version attempted to take an atheoretical approach to classification in order to be useful for clinicians with various theoretical viewpoints. Additionally, disorder categories were more scientifically defined and structured, which increased diagnostic reliability and validity. The DSM-III introduced the multiaxial system, which included five levels of influence on an individual's overall diagnostic picture: characteristics of the clinical disorder itself (Axis I), personality style and/or mental retardation (Axis II), relevant medical disorders (Axis III), environmental factors (Axis IV), and overall functional impairment (Axis V). This framework allowed clinicians to gather information about the individual's functioning in a number of areas, rather than limiting information to the disorder symptomatology. DSM-IV, published in 1994, changed many disorder criteria, as well as added many new features to each description, such as information related to race, gender, culture, expanded description of diagnostic features, and information on differential diagnosis. This version barely depended on expert consensus, relying instead on literature reviews and clinical trials to update and verify diagnostic criteria.

DSM-5. The most recent version of the DSM was the culmination of 14 years of research, preparation, and revision (La Roche, Fuentes, & Hinton, 2015). These revisions aimed to enhance clinical and research utility by providing concise diagnostic criteria for each disorder within a nosologically organized chapter framework, as well as supplementing these descriptions with dimensional measures that cross diagnostic boundaries, when appropriate. Additionally, this version includes a brief digest of information about the diagnosis, risk factors, associated features, research advances, and various expressions of the disorder (APA, 2013).

The most notable change in the DSM-5 was the removal of the multiaxial system. Axis I was combined with Axis II and III, so along with the primary disorder itself, clinicians can list as many medical conditions or personality disorder(s) as necessary. Axis IV, which covered psychosocial and environmental contributions to the disorder symptomatology, was removed in order to better align with the ICD. The global assessment of functioning (GAF) scale previously included in Axis V was removed for reasons of insufficient conceptual clarity and clinical utility. In its place, the second version of the WHO Disability Assessment Schedule (WHODAS 2.0) is included in section III of DSM-5 (APA, 2013).

The reason for these conceptual and structural changes was the recognition that boundaries between disorders may be more porous than originally thought. Previous versions of the DSM considered each disorder as categorically separate from other diagnoses and health-related factors, and thus did not capture the widespread commonalities in symptoms and risk factors across many disorders, as has

been increasingly demonstrated in studies of comorbidity. Earlier editions of DSM prioritized avoiding false-positives by making diagnostic categories very narrow and specific, but critics argued that this approach did not fully capture the clinical reality of symptom heterogeneity within disorders. As such, much of the debate surrounding the development of the DSM-5 addressed this issue of categorical vs. dimensional classification. Despite the strong proponents of moving to a dimensional diagnostic system, the DSM-5 Task Force recognized that it is still premature to completely redefine most disorders. Thus, the “hybrid” organizational structure of the DSM-5 is meant to serve as a bridge to new diagnostic approaches without causing unnecessary disruption of current clinical practice and research (Kupfer, 2013; Stein et al., 2010).

As part of its nosological reorganization, chapters in the DSM-5 are organized based on developmental and lifespan considerations. The Manual begins with diagnoses thought to reflect developmental processes manifested early in life (e.g., neurodevelopmental disorders, schizophrenia and other psychotic disorders), followed by diagnoses that more commonly onset in adolescence and young adulthood (e.g. bipolar, depressive, and anxiety disorders), and ends with diagnoses relevant to adulthood and later life (e.g., neurocognitive disorders). A similar approach is taken within each chapter, where possible. This organizational structure facilitates the comprehensive use of lifespan information as a way to assist in diagnostic decision-making. In addition to these changes, the DSM-5 included significant content revisions to the diagnostic criteria of many disorders; these changes range from relatively minor alterations, such as new time-duration or symptom-count requirements, to major redefinitions, such as the dimensional assessment of Alcohol Use Disorders and Autism Spectrum Disorders. For more details on the changes from DSM-IV-TR to DSM-5 see: <http://www.dsm5.org/documents/changes%20from%20dsm-iv-tr%20to%20dsm-5.pdf>.

International Classification of Diseases and Related Health Problems (ICD)

The history of psychiatric classification in the ICD contains many similarities to the developments seen in the DSM. The sixth edition of the ICD, published in 1948, was the first to include a description of mental health disorders. Nevertheless, it was not until the early 1960s that the Mental Health Program of the WHO became actively engaged in improving the diagnosis and classification of mental disorders. At that time, the WHO convened a series of meetings that actively involved experts from different psychiatric disciplines and schools of thought, and well as representatives from all parts of the world. This extensive consultation process yielded numerous proposals to improve the classification of mental disorders, many of which were used in drafting the eighth edition of the ICD. However, much like the DSM-II, this edition had little international influence due to its severe lack of diagnostic reliability.

The 1970s brought further interest in improving psychiatric classification worldwide. This growth was due to the expansion of international collaborative studies, the availability of new treatments, and the need to develop specific criteria for classification in order to improve diagnostic reliability. Drawing from empirical support provided by international research collaborations and scientific conferences, the ICD-10 contains a clear set of diagnostic criteria, as well as assessment instruments to reliably obtain these diagnoses.

The tenth edition (ICD-10, 1993) chapter on mental health was developed simultaneously to the DSM-IV, to make them as compatible as possible. Accordingly, this version classifies mental disorders using a criteria-based system, and also includes detailed descriptions of the symptomology and clinical picture. There are, however, still differences between the two manuals in a few key areas. First, certain definitions or descriptions differ slightly; for example, Schizophrenia and Schizoaffective Psychoses have different criteria, and a traumatic event is defined differently within the Trauma-related disorders. Second, some disorders in the DSM are completely absent from the ICD, such as Narcissistic Personality Disorder, or Bipolar II.

Another key distinction is the ICD-10 maintains a multiaxial system, similar to DSM-IV with which it was developed. This system allows for social/environmental, functional impairment, and somatic factors to be considered in tandem with the psychiatric criteria. Lastly, the ICD not only contains descriptions of mental disorders, but also all medical disorders or causes of death; due to this vast scope, each version of the ICD comprises several distinct editions. The edition with the classification of mental disorders is in the ICD-10, but was published in 1992 and is therefore rather behind the DSM in terms of recent updates. The ICD-11 editing and development process began in 2007, and is projected to finish in 2018. As in the previous edition, ICD-11 was developed concurrently with the DSM-5. In both new editions, the grouping of disorders was changed from being based primarily on common presenting symptoms, to an organizational system that reflects common underlying etiological factors (where possible). The current status of the ICD-11 can be viewed online at: <http://apps.who.int/classifications/icd11/browse/l-m/en>.

Culture and Psychopathology

The study of **psychopathology** has traditionally been a Western pursuit emphasizing an individual-centered medical model. This system is consistent with an *emic* approach, or research conducted from the perspective of the subject, though there has been increasing interest in employing an *etic* approach, or research from the perspective of an outside observer. In this approach, researchers attempt to identify the universal elements of psychopathology, whereas research from an emic perspective studies specific psychopathologies within a given culture. In each of these approaches, “culture” has often been poorly or inconsistently defined. It is insufficient to define culture solely through proxy and broadly defined variables such as skin color (i.e., race) or place of birth (i.e., ethnicity). It is necessary to take into account the ways in which people

construct different cultural meanings, which are a result of a multiplicity of causes including religion, socioeconomic factors, and so forth. Culture refers to systems of knowledge, concepts, rules, and practices that are learned and transmitted across generations. This includes language, religion and spirituality, family structures, life-cycle stages, ceremonial rituals, and customs, as well as moral and legal systems (Schwartz, Unger, Zamboanga, & Szapocznik, 2010).

Prior to the DSM-5, critics using a cultural framework (e.g., La Roche, 2013; Sue & Sue, 2008) argued that the DSM's nosological system is based on Western American beliefs (e.g., individualism, emphasis on biology) and practices (e.g., standardization), which limits the system's usefulness among different cultural groups. More specifically, when Western American standards are used to diagnose cultural minorities it is more likely that culturally based factors will be misconstrued or overlooked (Hinton & Good, 2009; La Roche, 2013). This insufficient attention to cultural aspects is primarily a function of the DSM's emphasis on standard diagnostic criteria that can clearly define homogenous mental disorders. In addition, cultural differences and influences on psychopathology can be hard to articulate, and are even considered by some to be "superficial" characteristics next to biological considerations of disease etiology and maintenance. Moreover, research on cultural topics is not typically prioritized among American researchers, and is usually published in small journals—though this trend is slowly changing as research pursuits become increasingly global.

A cultural perspective on the study of psychopathology is important for several reasons. First, it may help in the development of culture-specific therapies. Second, it may provide valuable information about the psychological problems seen in particular cultures and their development as a function of the particular demands that culture places on individuals. Third, the examination of culture-specific syndromes, which are interesting in and of themselves, may help illuminate more general patterns of cultural values as they relate to the classification of mental disorders. Lastly, and most importantly, understanding the cultural context of mental disorders is essential for effective diagnostic assessment, clinical management, and treatment. Mental disorders should be defined in relation to cultural, social, and familial norms or values, particularly when defining "clinically significant impairment," as this subjective criterion can be heavily influenced by cultural norms. Culture provides an interpretive framework that shapes the experience and expression of the symptoms, signs, and behaviors that make up diagnostic criteria. Although some forms of psychopathological expression can be universal, cultural aspects can affect the manifestation of certain symptoms, and consequently the prevalence of mental disorders (Alegria et al., 2004). The boundaries between normality and pathology vary across cultures for specific types of behaviors. Thresholds of tolerance for specific symptoms or behaviors differ across cultures, social settings, and families. Hence, the level at which an experience becomes problematic or pathological will differ (APA, 2013). For example, all human beings will likely experience low moods, but cultural factors are important in defining what is considered "low," what terms are used to express these moods, when and how they are recognized as pathological, and how or from whom help is sought (Bhugra, 2009).

Diagnostic assessment must therefore consider whether an individual's experiences, symptoms, and behaviors differ from sociocultural norms and lead to difficulties in adaptation in the cultures of origin and in specific social or familial contexts. Accordingly, key cultural aspects relevant to diagnostic classification and assessment were considered in the development of the DSM-5. These considerations prompted the inclusion of a new "glossary of cultural concepts of distress," which describe several culture-specific syndromes, such as: *Ataque de nervios* (an emotional upset, including anxiety, anger, or grief among Latinos), *Dhat syndrome* (South Asian cultural explanation for semen loss in young men), or *Taijin kyofusho* (Japanese anxiety and avoidance of social interactions because of a fear of acting inadequate or offensive to others). Furthermore, the DSM-5 presents a Cultural Formulation Interview (CFI) in its appendices. This 16-item semi-structured interview is an assessment tool aimed at more accurately identifying components of an individual's cultural background that might impact their clinical presentation and care. The CFI directly assess an individual's beliefs, as well as define idioms of distress, rather than simply categorizing individuals as "multicultural" based on their skin color or place of birth. The information provided throughout the CFI can help practitioners avoid misdiagnosis, obtain clinically useful information, improve clinical rapport and therapeutic efficacy, guide research, and clarify cultural epidemiology.

Overview of Psychopathologies

In the next sections we will briefly describe a number of psychopathological categories and disorders contained in the DSM-5 and ICD-10. We will limit our discussion to some of the most common disorders.

Mood Disorders

Mood disorders describe a serious disturbance in mood, and are usually divided into depressive disorders and bipolar-related disorders. The ICD-10 groups these disorders under the same category, but the DSM-5 separated them, placing the bipolar-related disorders after the psychotic disorders chapter, and before the depressive disorders chapter. This change was the result of increasing evidence suggesting that bipolar disorders are etiologically similar to both diagnostic classes in terms of symptomatology, family history, and genetics (APA, 2013).

Depression is one of the most common mental disorders. The World Health Organization (WHO, 2016) estimated that depression affects 350 million people in the world. It is the leading cause of disability in the U.S and the world for people between ages 15 and 44, and 80% of people with depression are limited in their daily functioning, particular at work. The depressive disorders include Major Depressive Disorder (MDD), Persistent Depressive Disorder (previously dysthymia),

and Disruptive Mood Dysregulation Disorder (DMDD). The common feature of all depressive disorders is the presence of sad, empty, or irritable mood, accompanied by somatic and cognitive changes that significantly affect the individual's capacity to function. People with depression may experience a lack of interest and pleasure in daily activities, significant weight loss or gain, insomnia or excessive sleeping, lack of energy, inability to concentrate, feelings of worthlessness or excessive guilt and recurrent thoughts of death or suicide. The depressive disorders are differentiated by their symptom course, age of onset, or presumed etiology (APA, 2013; Leahy, Holland, & McGinn, 2012).

Bipolar related disorders are a cluster of disorders in which common emotions become magnified in intense and often unpredictable ways. Individuals with bipolar disorder can quickly swing from extremes of happiness, energy and clarity to sadness, fatigue and confusion. These shifts can be so devastating that individuals may choose suicide. The diagnosis of a bipolar disorder requires the experience of at least one manic episode, which describes a period of abnormally elevated or irritable mood resulting in over-activity, pressured speech, and decreased need for sleep. Bipolar disorders can also include episodes of depression, though not all people with mania become depressed. The ICD-10 also includes a diagnosis of Hypomania, which includes the same symptoms as a manic episode with two important differences: the mood disturbance is not severe enough to cause hospitalization or great functional impairment, and the episode does not include psychotic features. Bipolar disorders, in their various forms, affect 3.4% of the world's population, but the prevalence differs by country. For example, Merikangas et al. (2011) found that the United States has the highest lifetime and 12-month prevalence of bipolar disorders (4.4% and 2.8%, respectively), while India has the lowest (both 0.1%).

These cultural differences are also manifested in the variety of symptoms related to depression and bipolar disorders. For example, while depression has a core set of symptoms, (including low mood, sleep problems, lack of interest and energy, and poor concentration), other symptoms, such as shame and guilt, psychomotor retardation, low self-esteem and low self-confidence are more likely to vary across cultures. Similarly, in hypomania, over activity, sexual disinhibition and irritability are most likely universal, but behaviors such as over-spending may differ across ethnic and cultural groups (Bhugra, 2009). The main mood disorders are described in Table 1.

Anxiety Disorders

Anxiety Disorders are characterized by excessive worry about some feared outcome, which is disproportionate with the actual risk of that outcome, persists past the point where such anxious attention might be adaptive, and causes clinically significant distress, functional impairment, or avoidance. Within the anxiety disorders fall more specific diagnoses, including general anxiety, social anxiety, and panic disorder. The core feature of all anxiety disorders is worry, but the object of worry and the typical behavioral response patterns differ slightly for each disorder.

Table 1 Description of mood disorders

Disorder	Description
Major depression disorder (MDD)	Sad mood or loss of interest or pleasure, accompanied by other symptoms such as sleep problems, weight loss/gain, psychomotor agitation/retardation, and lack of energy; symptoms are present for most of the day, nearly every day, for at least 2 weeks
Persistent depressive disorder (dysthymia)	Depressed mood that occurs more days than not for most of the day, lasting for at least 2 years. This mood is accompanied by other symptoms described in MDD
Disruptive mood dysregulation disorder	Presentation of children (up to 12 years of age) with persistent irritability and frequent episodes of uncontrolled extreme behavior and temperamental outbursts
Bipolar I	At least one full manic episode; the occurrence of a major depressive episode may follow, but is not required for a diagnosis
Bipolar II	A hypomanic episode diagnosed after one or more major depressive episode
Cyclothymia	A chronic (at least 2 years) fluctuating mood disturbance, involving numerous distinct periods of hypomania and depression

Anxiety disorders are some of the most prevalent disorders, affecting three out of ten people in their lifetime (Kessler et al., 2005). They tend to be chronic, start early in life (Martin, 2003), and comorbid with other mental illnesses (Michael, Zetsche, & Margraf, 2007). The most common anxiety disorders are described below, and brief descriptions of all anxiety disorders can be found in Table 2.

As far as research has explored, general anxiety disorder appears in most cultures; however, there is a great degree of variation in the expression of anxiety between cultures. More specifically, anxiety is manifested in primarily somatic symptoms in some cultures, but takes a more cognitive focus among others. Additionally, the content and severity of worry tends to be culture-specific, so a diagnosis of general anxiety disorder must be made within the context of what the individual's society views to be worrisome and excessive (Marques, Robinaugh, LeBlanc, & Hinton, 2011).

Generalized Anxiety Disorder (GAD) describes a pattern of excessive worry that occurs most days for at least 6 months; this worry is hard to control, causes clinically significant distress or functional impairment, and is associated with three or more psychosomatic symptoms of distress, including: restlessness, fatigue, difficulty concentrating, irritability, muscle tension, or sleep disturbance (APA, 2013). Whereas normative anxiety waxes and wanes, general anxiety disorder tends to persist throughout a person's life, and rates of full remission are very low (Rodriguez et al., 2006). The 12-month prevalence of general anxiety disorder is estimated around 18% of the world's adult population (Kessler, Chiu, Demler, & Walters, 2005). Generalized anxiety disorder is present in both males and females, though the disorder is much more common among females (Yonkers, Warshaw, Massion, & Keller, 1996).

Social anxiety disorder (SAD, formerly social phobia). In SAD the content of the worry is specific to social situations in which the individual is potentially exposed to scrutiny or negative evaluation. These situations could include real evaluative

Table 2 Description of anxiety disorders

Disorder	Description
Separation anxiety disorder	Developmentally inappropriate and excessive anxiety surrounding separation from attachment figures, lasting at least 4 weeks in children, or 6 months in adults
Selective mutism	Consistent failure to speak in specific social situations, despite speaking in other situations; disturbance lasts at least 1 month and interferes with education or occupational achievement, or social communication
Specific phobia	Marked fear of a specific object or situation (e.g. flying, heights, animals, injections), which is disproportionate to the actual threat of harm, causes functional impairment or distress, and lasts for at least 6 months
Social anxiety disorder (SAD, formerly social phobia)	Excessive worry about negative evaluation in social situations, lasting for at least 6 months and causing significant distress, impairment, or avoidance behaviors
Panic disorder	Experience of at least one panic attack, followed by at least 1 month of excessive worry about having another panic attack, or intolerance of panic symptoms
Agoraphobia	Fear of being public places from which escape might be difficult; fears and behavioral avoidance last at least 6 months and cause significant distress or impairment
General anxiety disorder (GAD)	Excessive and pervasive worry about issues of daily life, associated with persistent psychosomatic symptoms of worry; symptoms last for at least 6 months, and cause clinically significant distress, avoidance behaviors, and/or functional impairment

circumstances, such as giving a presentation or going on a date, but could also be casual social settings such as going to dinner with friends. Regardless of the circumstance, the individual with social anxiety experiences a degree of fear that is disproportionate to the actual risk of being negatively evaluated or the consequences of such an evaluation; this fear is frequently so intense that the person will completely avoid the situation, or will endure it with debilitating anxiety. Social anxiety disorder tends to onset earlier in life; 50% of cases onset by 11 years of age, and 80% by the age of 20 (Stein & Stein, 2008). Community estimates of rates of remission vary widely, but the average remission rate based on prospective studies is estimated to be around 50% (Vriends, Bolt, & Kunz, 2014).

In East Asian cultures such as Japan and Korea, the syndrome of *taijin kyofusho* is very similar to social anxiety disorder, as it is characterized by a fear of social evaluation associated with the concern that the individual makes other people uncomfortable (Kleinknecht, Dinnel, Kleinknecht, Hiruma, & Harada, 1997). Additionally, the prevalence of social anxiety disorder may not accurately reflect the prevalence of social anxiety symptoms; for example, Asian cultures typically have the lowest rates of the disorder, but individuals in these cultures still clearly experience symptoms of social anxiety. This discrepancy perhaps reflects different perceptions of what constitutes “excessive” or “pathological” social anxiety, and thus

it is essential to consider an individual's cultural context when making a diagnosis (Hofmann, Asnaani, & Hinton, 2010).

Panic Disorder. Panic Disorder differs from general and social anxiety disorder inasmuch as the primary object of anxiety is the experience of anxiety itself; more specifically, individuals with panic disorder have experienced at least one panic attack, which then leads to excessive worry about having another panic attack, or the consequences of such panic symptoms (e.g. worry about being "crazy" or having a stroke). Additionally, this subsequent concern can be manifested in significant and maladaptive behavioral changes related to the fear of having an attack, such as avoidance of unfamiliar situations or cardiovascular exercise.

Obsessive-Compulsive Spectrum Disorders

In previous versions of the DSM, OCD was classified under the Anxiety Disorders. However, the DSM-5 created a new chapter on Obsessive Compulsive and Related Disorders, which in addition to OCD includes body dysmorphic disorder (BDD), hoarding disorder, trichotillomania (hair-pulling disorder), and excoriation (skin-picking) disorder (Stein, Craske, Friedman, & Phillips, 2014). The inclusion of this new chapter reflects the gathering empirical evidence that these disorders share diagnostic characteristics, as well as etiological pathways (Monzani, Rijdsdijk, Harris, & Mataix-Cols, 2014). All of the obsessive-compulsive spectrum disorders are characterized by preoccupations, repetitive behaviors or mental acts in response to those preoccupations, the excessive or developmentally atypical persistence of symptoms, and clinically significant functional impairment or distress (APA, 2013). The following includes a description of OCD, and a brief review of the OC spectrum disorders is presented in Table 3.

Obsessive compulsive disorder (OCD) is a debilitating psychiatric disorder consisting of persistent intrusive thoughts or images, and/or compulsory behaviors that cause significant distress and anxiety. OCD affects approximately 2% of the population, and commonly emerges in childhood and adolescence. As a clinically heterogeneous disorder, individuals with OCD may present with a variety of symptom profiles. *Obsessions* are recurrent thoughts, urges, or images that are unwanted, yet repetitively intrude into an individual's mind and cause anxiety and distress. The individual will often ignore or suppress these obsessions, or will attempt to neutralize them with another thought or action. Such a neutralizing thought or action is considered a *compulsion*, defined as any behavior or mental act that the individual feels driven to perform in order to prevent or reduce anxiety or distress associated with an obsession (e.g. cleaning, arranging, checking, or praying). While repetitive or ritualized behaviors are common among the general population and can even be quite useful (e.g. organizational aids or personal hygiene rituals), the symptoms of OCD are much more extreme, and cause varying degrees of impairment across any or all domains of life, including personal, social, occupational, and even medical health.

Table 3 Description of obsessive-compulsive spectrum disorders

Disorder	Description
Obsessive-compulsive disorder (OCD)	Presence of obsessions, compulsions, or both, which occupy at least 1 h/day or cause significant distress or impairment
Body dysmorphic disorder (BDD)	Preoccupation with one or more perceived defects or flaws in physical appearance, associated with repetitive behaviors or mental acts, and which cause distress or impairment
Hoarding disorder (HD)	Persistent difficulty discarding possessions, regardless of their actual value, which results in compromised living areas and causes distress or impairment
Trichotillomania (hair-pulling disorder)	Recurrent hair-pulling resulting in hair loss and significant distress or impairment
Excoriation (skin-picking) disorder	Recurrent skin-picking resulting in skin lesions and significant distress or impairment

Obsessions and compulsions can also be time-consuming, and even if an individual reports no distress or impairment, a diagnosis of OCD may still be given if the symptoms occupy more than an hour each day (Gómez, Cooperman, & Geller, 2015).

Trauma and Stressor Related Disorders (Including Dissociative Disorder)

Similar to the obsessive-compulsive disorders chapter, the chapter on trauma- and stressor-related disorders is new to the DSM-5. This chapter includes disorders in which exposure to a traumatic or stressful event is listed explicitly as a diagnostic criterion. In DSM-IV, post-traumatic stress disorder (PTSD) and acute stress disorder were under the umbrella of anxiety disorders, but a distinct chapter was warranted for a few reasons. First, trauma-related disorders differ from anxiety disorders in the variety of commonly elicited emotions (e.g. guilt, rage and shame, not only anxiety and fear-based symptoms); second, they all share a proximal instigating stressful event followed by intense emotional responses, whereas anxiety disorders are not typically caused by one triggering event; lastly, the ICD-10 has long distinguished trauma-related disorders from anxiety disorders (Möller et al., 2015). The trauma and stressor-related disorders include PTSD, acute stress disorder, reactive attachment disorder, disinhibited social engagement disorder, and adjustment disorders, each of which will be briefly described.

PTSD is a well-recognized psychiatric disorder that occurs following a major traumatic event. The event must be an exposure or repeated exposures to actual or threatened death, serious injury, or sexual violence, which the individual experienced or witnessed while it was happening. A diagnosis of PTSD may also be given if the person learned about (but did not witness) an event that happened to a close relative, but only if the event was violent or accidental. The characteristic symptoms of PTSD include re-experiencing phenomena (such as nightmares or recurrent distressing thoughts or

intrusive images of the event), avoidance and numbing of general responsiveness (such as trying not to talk about or be reminded of the traumatic event), feelings of detachment or estrangement from other people, and symptoms of hyperarousal, including sleep disturbance, increased irritability and hypervigilance (Bisson & Andrew, 2007). In order to be diagnosed with PTSD all of these symptoms need to be present for more than a month.

PTSD is more prevalent among females than among males across the lifespan, and lifetime risk for PTSD using DSM-IV criteria is 8.7% (Kessler, Berglund, et al., 2005). The risk of onset and severity of PTSD may differ across cultural groups as a result of variation in the type of traumatic exposure. The diagnostic criteria for PTSD are valid cross-culturally, in that they constitute a cohering group of symptoms that occur in diverse cultural settings in response to trauma. However, there are some differences in symptoms expression across cultural, such as the salience of avoidance and somatic symptoms, and the importance of distressing dreams (Hinton & Lewis-Fernandez, 2011).

Acute stress disorder has a similar symptom profile as PTSD, but a shorter time-requirement, as symptoms can last for 3 days to 1 month following exposure to one or more traumatic events (Bryant, Friedman, Spiegel, Ursano, & Strain, 2011). Similarly, a diagnosis of adjustment disorder applies to milder reactions to a stressful life event, which nevertheless cause significant distress and impairment at least 3 months following the stressor. The ICD-10 emphasizes that the adjustment disorder diagnosis should be given following a stressor that is not unusual or catastrophic, such as a move or transition to a new job.

Dissociative disorders. These disorders are also part of the trauma- and stressor-related category in the ICD-10, although they have their own category in the DSM-5. Dissociative disorders are characterized by a disruption of and/or discontinuity in the normal integration of consciousness, memory, identity, emotion, perception, body representation, motor control, and behavior. The dissociative disorders are frequently found in the aftermath of trauma, and many of the symptoms are influenced by the proximity to trauma (Wolf et al., 2012).

There are a few stress-related disorders that typically occur in childhood; the DSM-5 places these disorders in the stressor-related chapter, whereas the ICD-10 classifies these disorders under the age-related or developmental disorders category. *Reactive attachment disorder* is defined as a pattern of markedly disturbed and developmentally inappropriate attachment behaviors in response to early childhood stressors or severe neglect. Developmentally inappropriate attachment behaviors include rarely or minimally turning to an attachment figure (i.e. parent or primary caregiver) for comfort, support, protection, and nurturance (Zeanah, Chesher, & Boris, 2016). *Disinhibited social engagement disorder* is a pattern of behavior in which the child shows no inhibitions when approaching adults, and this overly familiar behavior violates the social boundaries of the culture. In order to get the diagnosis, the child must be at least 9 months old, the age at which they are developmentally able to form selective attachments (Lehmann, Breivik, Heiervang, Havik, & Havik, 2016).

Substance-Related and Addictive Disorder

The substance-related disorders encompass eight to ten separate classes of drugs: alcohol; caffeine; cannabis; hallucinogens (with separate categories for phencyclidine and other hallucinogens); inhalants; opioids; sedatives, hypnotics, and anxiolytics; stimulants (amphetamine-type substances, cocaine, and other stimulants); tobacco; and other (or unknown) substances. The pharmacological mechanisms by which each class of drugs activates reward systems in the brain are different, but all produce feelings of pleasure (Volkow, Koob, & McLellan, 2016). In addition to the substance-related disorders, this category of disorders also includes gambling disorder, reflecting evidence that gambling behaviors activate reward systems similar to those activated by drugs of abuse, as well as produce some behavioral symptoms that appear comparable to those produced by the substance use disorders (Romanczuk-Seiferth, van den Brink, & Goudriaan, 2014).

Across the substance classes, the DSM-5 classifies two types of disorders, and the ICD-10 also includes similar classifications, but in a slightly different format. One is the Substance-Use Disorder (DSM-5) or Dependence Syndrome (ICD-10). This disorder-type refers to a problematic pattern of use, which leads to clinically significant impairment or distress. Unlike many other disorders, this “functional impairment” criterion contains more specific descriptions of possible manifestations. For example, consumption of a larger amount of the substance over a longer period than was originally intended; a persistent desire or unsuccessful efforts to control or curb use; marked craving for the substance; continued use despite social or interpersonal problems as a result of substance-use, etc. The DSM-5 includes a list of 11 symptoms, and the number of symptoms endorsed by the individual defines the severity of the disorder. Critics of this approach claim that the individual’s history of use and other emotional experiences may be more informative and predictive of future impairment than simply counting symptoms (Lima et al., 2015). The fact that the ICD-10 includes fewer symptoms than the DSM-5 reinforces this critique, and creates differences between the two diagnostic systems (Möller et al., 2015).

The second disorder-type in the substance use category is the induced disorders, which include intoxication, withdrawal, and other substance/medication-induced mental disorders (e.g., substance-induced psychotic disorder, substance-induced depressive disorder). Intoxication disorders (e.g. opioid intoxication; sedative, hypnotic or anxiolytic intoxication) are clinically significant problematic behavioral or psychological changes that developed during, or shortly after, the use of a substance. For a person to become intoxicated depends on which drug is taken, how much is ingested, and the person’s individual biological reaction. Symptoms of intoxication differ across substance classes, and usually include impaired judgment, mood changes, and lowered motor ability. Withdrawal disorders (e.g. stimulant withdrawal; caffeine withdrawal) are characterized by physiological and psychological symptoms, such as changes in mood, sleep, and appetite dysregulation, which develop shortly after cessation or reduction of substance consumption, and which cause significant distress or impairment (Starcevic, 2016).

Somatic Disorders

Somatic disorders are broadly characterized by anxiety or distress related to the experience of physical symptoms such as pain or fatigue (Dimsdale et al., 2013). This category includes two main disorder-types, which have different names and slightly different criteria in the DSM and the ICD. The first disorder-type includes Somatic Symptom Disorder (DSM-5), or Somatization Disorder (ICD-10), which describe psychological distress that is associated with, and compounds the severity of, physical symptoms such as pain; the other disorder-type includes Illness Anxiety (DSM-5), or Hypochondriacal Disorder (ICD-10), which describe a persistent pre-occupation and anxiety that is focused on the possibility of having or developing a serious disease.

Somatic disorders are among the most frequent reasons for doctor visits, and are present in 10–20% of primary care patients (Sharma & Manjula, 2013). Consequently, somatic disorders are associated with public health costs that are comparable to those caused by anxiety and depressive disorders (Konopka et al., 2012; Kroenke, 2007; Steinbrecher, Koerber, Frieser, & Hiller, 2011). Additionally, the functional impairment associated with somatoform disorders is comparable to that seen in depressive and anxiety disorders. Somatic disorders may also accompany other psychiatric disorders, especially depression and anxiety, and the complexity introduced by this dual diagnosis often results in higher severity, functional impairment, and even refractoriness to traditional anxiety or depression treatments (Katz, Rosenbloom, & Fashler, 2015).

The DSM-5 and the ICD-10 define somatic disorders differently, but a common feature is the association between physiological symptoms and significant distress or impairment. The main difference lies in how each set of diagnostic criteria handle the occurrence of true somatic symptoms. In the ICD-10 (as well as in the DSM-IV), diagnostic criteria specify that the individual's physical symptoms cannot be explained by any detectable physical condition. However, in the DSM-5 a diagnosis is made on the basis of distressing somatic symptoms plus abnormal thoughts, feelings, and behaviors in response to these symptoms, rather than the absence of a medical explanation for somatic symptoms. The notion behind this change is that incorporating affective, cognitive, and behavioral components into the criteria provides a more comprehensive and accurate reflection of the true clinical picture than can be achieved by assessing the somatic complaints alone (APA, 2013).

Research on cultural factors involved in somatic disorders indicates that somatization—in all of its various definitions—is common among all cultural groups and societies. Differences among groups may reflect cultural styles of expressing distress that are influenced not only by cultural beliefs and practices, but also by familiarity with health care systems and pathways to care (Kirmayer & Young, 1998).

Feeding and Eating Disorders

Feeding and eating disorders are characterized by a persistent disturbance of eating or eating-related behavior that results in the altered consumption or absorption of food, and which significantly impairs physical health or psychosocial functioning (APA, 2013). Feeding and eating disorders are associated with increased psychopathology, health problems, and impairment in quality of life (Hilbert, de Zwaan, & Braehler, 2012).

Diagnostic criteria are provided for pica, rumination disorder, avoidant/restrictive food intake disorder, anorexia nervosa, bulimia nervosa, and binge-eating disorder, and are presented in Table 4. The more prevalent disorders are anorexia nervosa (0.3%), bulimia nervosa (0.9%), and binge-eating disorder (1.6%) (Swanson, Crow, Le Grange, Swendsen, & Merikangas, 2011). Eating disorders are rare in the general population, but are more common among adolescent girls and young women; nevertheless, they can affect both women and men of different ages and baseline weights (Hilbert et al., 2012; Hoek & van Hoeken, 2003).

Between 1960 and 2000, the frequency of eating disorders increased dramatically among Western countries, which emphasizes the strong influence of cultural factors on the development and maintenance of eating disorders (Lindvall Dahlgren & Wisting, 2016). To this day, the etiology of eating disorders seems to be more sociocultural than psychological or biological, as is the case for other disorders. This understanding is based on the low incidence of eating disorders among countries and cultures in which people are struggling to buy and find food. However, this pattern may be shifting, as there is evidence that eating disorders are emerging in Eastern cultures as well (Barlow et al., 2016).

Sleep-Wake Disorders

Sleep is essential for a person's health and wellbeing, though the amount sleep needed varies among individuals (Flueckiger, Lieb, Meyer, Witthauer, & Mata, 2016). In general, most healthy adults are built for 16 h of wakefulness and need an average of 8 h of sleep a night. Unfortunately, up to 60% of adults report experiencing sleep problems at least a few nights a week, due to different stressors, living and working style, and physiological conditions. The majority of individuals with these sleep problems go undiagnosed and untreated (Demir et al., 2015). In addition, more than 40% of adults experience daytime sleepiness severe enough to interfere with their daily activities at least a few days each month, with 20% reporting impairing sleepiness a few days a week or more. Groups that are particularly at risk for sleep deprivation include night shift workers, physicians, truck drivers, parents, and teenagers (APA, <http://www.apa.org/topics/sleep/why.aspx>). The prevalence of sleep-wake disorders depends on the type of disorder, and ranges from rare (e.g. narcolepsy, <1% of the population), to common (e.g. insomnia, 6–10%; breathing-related sleep disorders, 2–15%; rapid eye movement sleep behavior disorder, 10–30%) (Chung et al., 2015).

Table 4 Description of eating disorders

Disorder	Description
Pica	Persistent eating of nonnutritive, nonfood substances over a period of at least 1 month. The eating is inappropriate to the developmental level of the individual, and is not part of a culturally supported or socially normative practice
Rumination disorder	Repeated regurgitation of food over a period of at least 1 month. Regurgitated food may be re-chewed, re-swallowed, or spit out, and is not attributable to an associated gastrointestinal or other medical condition
Avoidant/restrictive food intake disorder	Avoidance or restriction of food intake, manifested by clinically significant failure to meet requirements for nutrition or insufficient energy intake through oral intake of food
Anorexia nervosa	An intense fear of gaining weight or of becoming fat, accompanied with significantly distorted body image. The individual maintains a body weight that is below a minimally normal level, but is nevertheless afraid of being fat. Gaining weight, or even failure to continually lose weight, can cause intense panic, anxiety and depression. Death most commonly results from medical complications associated with the disorder itself or from suicide
Bulimia nervosa	Recurrent episodes of binge eating and compensatory behavior, such as self-induced vomiting, strict dieting, or the misuse of laxatives. Binge-purge episodes must occur at least once per week for 3 months. Regular purging can be very destructive physiologically, and has the potential to cause permanent damage to functions, including endocrine, cardiovascular, and dental health. Individuals are typically ashamed of their eating problems and attempt to conceal their symptoms
Binge-eating disorder (BED)	Recurrent episodes of uncontrolled binge eating that must occur, on average, at least once per week for 3 months. Unlike bulimia nervosa, BED does not include compensatory purging behavior. Binge eating must be characterized by marked distress and at least three of the following features: Eating much more rapidly than normal; eating until feeling uncomfortably full; eating large amounts of food when not feeling physically hungry; eating alone because of feeling embarrassed by how much one is eating; and feeling disgusted with oneself, depressed, or very guilty afterward

Sleep-wake disorders encompass a broad range of clinical features. They are traditionally divided into two large categories: Dyssomnias and Parasomnias (Ohayon, 2005). Dyssomnias are sleep disorders characterized by abnormalities in the amount, quantity, or timing of sleep. As such, they are associated with difficulty initiating or maintaining sleep, as well as daytime sleepiness (Chung et al., 2015). This category includes insomnia disorder, hypersomnolence disorder, narcolepsy, breathing-related sleep disorders, and circadian rhythm sleep-wake disorders. Parasomnias cover abnormal behavioral or physiological events occurring during sleep, but not involving the sleep mechanisms per se. Under this category are the

non-rapid eye movement (NREM) sleep arousal disorders, nightmare disorder, rapid eye movement (REM) sleep behavior disorder, restless legs syndrome, and substance/medication-induced sleep disorder. Individuals with these disorders usually complain about daytime distress and impairment, depression, anxiety, and cognitive changes. Furthermore, persistent sleep disturbances (both insomnia and excessive sleepiness) are established risk factors for the subsequent development of mental illness and substance use disorders (APA, 2013). A summary of the sleep-wake disorders can be found in Table 5.

Sexual Dysfunctions, Paraphilic Disorders, and Gender Dysphoria

In terms of sexual disorders, it is hard to clearly differentiate normal sexual behavior from distorted or maladaptive sexual behavior. This difficulty stems from differences in behavior that is considered acceptable in different cultures, as well as from different genders. For example, Asian countries place a much higher value on feminine virginity, and social control over feminine sexuality is typically very strong. Conversely, among developed individualistic western countries such as the US, a higher degree of sexual activity, including premarital sex, is generally accepted (Ubillos, Paez, & González, 2000).

In terms of diagnosing sexual disorders, current views tend to be quite tolerant of a variety of sexual expression, unless the behavior is associated with substantial impairment in functioning or involves non-consenting individuals such as children (Barlow et al., 2016). Unlike the DSM-IV, in which the Sexual and Gender Identity Disorders constituted one stand-alone chapter, the DSM-5 and the ICD-10 have three separate chapters for Sexual Dysfunctions, Paraphilic Disorders/Disorders of Sexual Preference, and Gender Dysphoria/Gender Identity Disorder. Each category is briefly described, and the specific disorders are presented in Table 6.

Sexual Dysfunctions

Sexual dysfunctions are a heterogeneous group of disorders that are typically characterized by a clinically significant disturbance in a person's ability to respond sexually or to experience sexual pleasure. Research shows that the prevalence of people with sexual dysfunction can be as high as 45%, but only around 25% of these individuals expressed significant distress (Bancroft, Loftus, & Long, 2003), which is required for a diagnosis according to the DSM-5. Sexual dysfunctions occur among all genders and sexual orientations. This category includes: delayed ejaculation, erectile disorder, female orgasmic disorder, female sexual interest/arousal disorder, genito-pelvic pain/penetration disorder, male hypoactive sexual desire disorder,

Table 5 Description of sleep-wake disorders

Category	Disorder	Description
Dyssomnias Problems in the amount, timing or quality of sleep	Insomnia disorder	Difficulties falling and staying asleep, and not feeling rested, even after sleeping
	Hypersomnolence disorders	Excessive sleeping at night, or frequent falling asleep during the day
	Narcolepsy	Poor control of sleep-wake cycles. With periods of extreme daytime sleepiness and sudden, irresistible bouts of sleep
	Breathing-related sleep disorders	A variety of breathing problems that occur during sleep and that lead to hypersomnia or insomnia
	Circadian rhythm sleep-wake disorder	When sleep times are out of alignment, thus sleep times are not normal at night
Parasomnias Abnormal events that occur during sleep or just upon awakening	Disorders of arousal	Motor movements and behaviors that occur during sleep including incomplete awakening (confusional arousal), sleep walking, or sleep terrors (waking up with a panicky scream)
	Nightmare disorder	Frequently awakened with detailed and vivid recall of intensely frightening dreams, usually involving threats to survival, security or self-esteem
	Rapid eye movement sleep behavior disorder	Episodes of arousal during sleep in which the individual engages in activities associated with waking, without actually being awake (e.g. acting out dreams)
	Restless legs syndrome	A relatively common phenomenon that involves urges to move the legs as a result of unpleasant sensations
	Substance-induced sleep disorder	Sleep disturbance that is the result of substance use

premature ejaculation, substance/medication-induced sexual dysfunction, and other specified or unspecified sexual dysfunction. An individual may have several sexual dysfunctions at the same time (Balon, Segraves, & Clayton, 2007).

Sexual dysfunctions are interdependent with psychosocial and biological/physiological factors, and diagnosis should include a careful consideration of issues such as the partner's emotional or personality problems, quality of the relationship, individual vulnerability, cultural or religious attitudes toward sexuality, and medical factors relevant to prognosis, course, or treatment.

Paraphilic Disorders/Disorders of Sexual Preference

Paraphilia means strong attraction to abnormal stimuli. Paraphilic disorders are diagnosed when sexual arousal occurs primarily in the context of inappropriate or atypical objects or individuals, and is associated with distress and impairment, or harm to others. The DSM-5 section on paraphilic/sexual disorders includes the most common disorders, as well as those classified as criminal offenses, and are organized into two groups of disorders. The first is based on anomalous activity preferences. These disorders are subdivided into courtship disorders, which resemble distorted components of human courtship behavior (voyeuristic disorder, exhibitionistic disorder, and frotteuristic disorder), and algolagnic disorders, which involve deriving sexual pleasure from physical pain (sexual masochism disorder and sexual sadism disorder). The second group of disorders is based on anomalous sexual target preferences. These disorders include one directed at other humans (pedophilic disorder), and two directed elsewhere (fetishistic disorder and transvestic disorder). It is important to note that for all these disorders, the presence of a paraphilia does not itself justify a diagnosis, but must also be accompanied by clinically significant distress, functional impairment, or harm to non-consenting others.

The population prevalence of most of these disorders is unknown, and estimates vary widely from 2 to 30% across disorders. Usually the prevalence among males is higher than in females (Konrad, Welke, & Opitz-Welke, 2015).

Table 6 Description of sexual dysfunctions, paraphilic disorders, and gender dysphoria

Category	Disorder	Description
Sexual dysfunctions	Delayed ejaculation	Marked delay, infrequency, or absence of ejaculation
	Erectile disorder	Marked difficulty in obtaining or maintaining an erection or decrease in erectile rigidity
	Female orgasmic disorder	Delay, infrequency, absence, or reduction in experiencing orgasm
	Female sexual interest/arousal disorder	Lack of, or significantly reduced, sexual interest or arousal
	Genito-pelvic pain/penetration disorder	Difficulties, pain, tension, or anxiety related to vaginal penetration
	Male hypoactive sexual desire disorder	Deficient or absent sexual/erotic thoughts, fantasies, or desire for sexual activity
	Premature (early) ejaculation	Pattern of ejaculation occurring very early during sexual activity and before the individual wishes it
	Substance/medication-induced sexual dysfunction	A clinically significant disturbance in sexual function caused by exposure to a substance or medication

(continued)

Table 6 (continued)

Category	Disorder	Description
Paraphilic disorders	Voyeuristic	Recurrent and intense sexual arousal from observing an unsuspecting person who is naked, in the process of disrobing, or engaging in sexual activity
	Exhibitionistic disorder	Recurrent and intense sexual arousal from the exposure of one's genitals to an unsuspecting person
	Frotteuristic disorder	Recurrent and intense sexual arousal from touching or rubbing against a non-consenting person
	Sexual masochism disorder	Recurrent and intense sexual arousal from the act of being humiliated, beaten, bound, or otherwise made to suffer
	Sexual sadism disorder	Recurrent and intense sexual arousal from the physical or psychological suffering of another person
	Pedophilic disorder	Intense sexually arousing fantasies, sexual urges, or behaviors involving sexual activity with a prepubescent child (generally age 13 years or younger)
	Fetishistic disorder	Recurrent and intense sexual arousal from either the use of nonliving objects or a highly specific focus on non-genital body part(s)
	Transvestic disorder	Recurrent and intense sexual arousal from wearing clothes typical of the opposite sex
Gender dysphoria	Under this category are gender dysphoria; other specified gender dysphoria; unspecified gender dysphoria	A marked incongruence between one's experienced/expressed gender and assigned/biological sex

Gender Dysphoria/Gender Identity Disorder

Gender dysphoria refers to cases where a person's biological sex is not consistent with what they experience as their correct gender. The diagnosis is given when this inconsistency is associated with clinically significant distress or impairment. Individuals with this disorder often feel trapped in a body of the wrong sex, and wish to live life openly in a manner consistent with that of their self-identified gender. The prevalence of gender dysphoria ranges from 0.002 to 0.014% (Dhejne, Öberg, Arver, & Landén, 2014).

Expression of gender dysphoria varies with age. Young children are less likely than older children, adolescents, and adults to express extreme and persistent

anatomic dysphoria. In adolescents and adults, incongruence between experienced gender and somatic sex is a central feature of the diagnosis. Factors related to distress and impairment also vary with age. A very young child may show signs of distress (e.g., intense crying) only in specific situations in which they are reminded of their divergent gender identification. In adolescents and adults, distress may manifest because of strong incongruence between experienced gender and somatic sex. Such distress may, however, be mitigated by supportive environments and knowledge that biomedical treatments exist to reduce incongruence (APA, 2013).

Disruptive, Impulse-Control and Conduct Disorders

Under this category are disorders involving problems in the self-control of emotions and behaviors. In the ICD-10, most of these disorders fall under the same category as personality disorders, though some are in the developmental disorders section. The disruptive behavior disorders are manifested in behaviors and habits that violate the rights of others (e.g., aggression, destruction of property) and/or that bring the individual into significant conflict with societal norms or authority figures. Since some of these behaviors can occur to some degree in typically developing individuals, the diagnosing clinician must consider the frequency and pervasiveness of behaviors across multiple contexts, the impairment associated with these behaviors. Furthermore, it is particularly important that behaviors be assessed relative to what is normative for a person's age, gender, and culture. These disorders tend to be more common in males than in females, and to onset in childhood or adolescence.

Oppositional defiant disorder. Defined as a frequent and persistent pattern of angry/irritable mood (e.g. losing temper), argumentative/defiant behavior (e.g. blaming others for their mistakes), or vindictiveness. The disturbance in behavior is associated with distress in the individual or others that are close to them.

Intermittent explosive disorder. Describes a pattern of poorly controlled emotions and verbal or physical outbursts of anger towards property, animals or other individuals. These behaviors are disproportionate to the interpersonal or other provocation, or to other psychosocial stressors.

Conduct disorder. Focuses largely on poorly controlled behaviors that violate the rights of others or that violate major societal norms (e.g. bullying others, initiating physical fights, being cruel, etc.). Conduct disorder is one of the few disorders to include in its criteria specific legal or social offenses (e.g. larceny, truancy).

Pyromania and kleptomania. Less common diagnoses characterized by poor impulse control related to specific behaviors (fire setting and stealing, respectively) that relieve internal tension.

Schizophrenia Spectrum and Other Psychotic Disorders

Schizophrenia is a complex syndrome affecting 1% of the population, irrespective of culture, class or race. The first episode of schizophrenia often occurs when a person is in their late adolescence or early adulthood and the course of the illness is variable. Some signs of the development of the disorder may be visible in childhood. This disorder can disrupt a person's perception, thought, speech, and movement and hence has a devastating effect on the individual and their family members. The prognosis of schizophrenia is poor, and recovery is very rare.

The symptoms of schizophrenia are varied, and can manifest differently among individuals. Some people have difficulties with their thoughts, making illogical associations and developing false and sometimes bizarre explanations (i.e., delusions) for their experiences or symptoms. Problems with false perceptions may also occur, for example hearing voices or seeing visions (i.e., hallucinations). Difficulties with concentration, attention and motivation may also lead to poor social and occupational functioning. The range of emotional expression, capacity to think and act may be reduced, together with an inability to experience pleasure (Jones, Hacker, Cormac, Meaden, & Irving, 2012). It is customary to view the symptoms of schizophrenia as falling into three broad categories: (1) 'positive' symptoms, which are unusual by their presence (for example, hearing voices); (2) 'negative' symptoms, which are unusual by their absence (for example, restricted range and intensity of emotional expression); and (3) disorganized symptoms, which are erratic behaviors that affect speech, motor behaviors and emotional reactions. A diagnosis of schizophrenia requires continuous signs of disturbance for at least 6 months, including at least one month in which two or more symptoms are active, and at least one symptom is delusions, hallucinations or disorganized speech.

Some psychotic behaviors do not fit under the title of schizophrenia. Table 7 presents other psychotic disorders as they are described in the DSM-5.

Personality Disorders

The personality disorders (PD) describe a persistent pattern of emotions, cognitions, and behaviors that results in enduring emotional distress for the person affected and/or for others. These symptoms deviate markedly from the expectations of the individual's culture, and are pervasive and inflexible, thus frequently cause difficulties with work and social relationships, and lead to distress or impairment. The onset of PDs is usually in adolescence or early adulthood, and since the symptoms follow a chronic course, they pervade every aspect of the person's life (APA, 2013; Widiger, 2012). Certain personality disorders (e.g., antisocial personality disorder) are diagnosed more frequently in males; others (e.g., borderline, histrionic, and dependent personality disorders) are diagnosed more frequently in females. The worldwide prevalence of PDs is estimated around 6% of adults (Quirk et al., 2016).

When diagnosing PDs, the clinician must understand an individual's symptoms in their sociocultural context, considering the dynamic interaction between personality traits, developmental histories of adversity, and the current social context (Ryder, Sunohara, & Kirmayer, 2015). Additionally, the diagnostic criteria specify that the impairments in personality functioning cannot better be explained by another mental disorder, the physiological effects of a substance, or another medical condition (Möller et al., 2015).

Both the DSM-5 and ICD-10 use a categorical approach to diagnosing PDs (i.e. PDs are qualitatively distinct clinical syndromes that are different from psychologically healthy behaviors). However, Section III of the DSM-5 includes a dimensional diagnostic approach, in which individuals are rated on a series of personality dimensions (e.g. personality functioning, traits, etc.) (APA, 2013; Möller et al., 2015). Table 8 summarizes the main personality disorders.

Neurodevelopmental Disorders

This category includes disorders presumed to have a neurological etiology, commonly onset early in life, and persist throughout the lifespan. The range of developmental deficits varies from very specific limitations of learning or control of executive functions, to global impairments of social skills or intelligence. Clinical descriptions of the main disorders in this category are presented in Table 9.

Neurocognitive/Organic Disorders

As opposed to the neurodevelopmental disorders that are believed to be present from birth, the neurocognitive disorders typically develop much later in life. The DSM-5 gathers these disorders under the new title of neurocognitive disorders. In the past these disorders were under the category of “organic mental disorders” (this name is still being used in the ICD-10), or “cognitive disorders,” but these titles were confusing in their descriptive overlap with other disorders categories.

The main disorders under this category are Delirium and Dementia; the ICD-10 also includes organic mental disorders due to brain injury or other physical problems. *Delirium* is characterized by impaired consciousness (e.g. attention and awareness) and cognitions (e.g. memory and language) during the course of several hours or days. In most cases, delirium appears after improper use of medications, especially among elderly population who tend to use prescription medications more than any other group. *Dementia*, or major neurocognitive disorder (according to DSM-5) is a gradual deterioration of brain functioning that affects memory, judgment, language and other advanced cognitive processes. The DSM-5 distinguishes between major neurocognitive disorders, and mild neurocognitive disorders, the latter being a new classification in the DSM-5. The distinction between the two is primarily one of severity and may correspond in most progressive disorders

Table 7 Description of psychotic disorders

Disorder	Description
Delusional	Persistent beliefs that are contrary to reality, in the absence of other characteristics of schizophrenia
Schizophreniform	Similar symptoms as schizophrenia, but with a different time course: The total duration of the illness, including prodromal, active, and residual phases, is at least 1 month but less than 6 months
Schizoaffective	Presence of a mood episode (major depressive or mania) in addition to delusions or hallucinations for at least 2 weeks
Catatonia	Marked psychomotor disturbance, including at least three of the 12 diagnostic features of catatonia (e.g., stupor, catalepsy, mutism, negativism)
Brief psychotic	Presence of delusions, hallucinations, disorganized speech or catatonic behavior for at least 1 day, but less than a month
Substance/medication-induced psychotic	Prominent delusions and/or hallucinations that are judged to be due to the physiological effects of a substance/medication
Psychotic disorder due to another medical condition	Psychotic symptoms are judged to be a direct physiological consequence of another medical condition

with earlier and later stages of the disease (Möller et al., 2015). Mild neurocognitive disorder is focused on the early stages of cognitive decline, in which the cognitive deficits do not interfere with capacity for independence in everyday activities. The different diagnoses refer to the cause of the neurocognitive disorder, such as medical conditions (e.g. Alzheimer's disease, HIV infection), abuse of drugs or alcohol, or trauma to the brain.

Summary and Conclusion

This chapter has focused on descriptions of psychological disorders as they are classified in the DSM-5 and ICD-10, the two primary diagnostic reference manuals used by clinicians today. Since their inception, each new edition of these manuals has been motivated by new research findings that have implications for the classification of psychological disorders. Accordingly, the history of these revisions reflects the changing landscape of how psychologists have conceptualized the key causes and characteristics of mental illness, as well as shifting political influences on funding for psychological research (Mayes & Horwitz, 2005). For example, the first edition of the DSM was published in 1952, a period in which Freudian psychoanalytic theories still dominated the field. Consequently, this first edition described most disorders as having a predominately psychodynamic etiology, stemming from dysfunctional or traumatic experiences in infancy or early childhood (Grob, 1991).

Since then, psychological research has demonstrated that both biological and cognitive mechanisms also contribute to the etiology and maintenance of psychological

Table 8 Description of personality disorders

Personality disorder	Description
Paranoid	Distrust and suspiciousness of others, including distorted interpretations of others' actions as malevolent and directed towards the individual
Schizoid	Detachment from social relationships, restricted range of emotional expression, and a preference for solitary activities
Antisocial/dissocial	Disregard for and violation of the rights of others, incapacity for social empathy, and irresponsible or violent attitudes towards societal norms, rules and obligations
Borderline	Instability of interpersonal relationships, self-image, affect, and control over impulses
Histrionic	Excessive emotional expression, attention seeking, and shallow affect
Avoidant/anxious	Social inhibition, feelings of inadequacy, and hypersensitivity to negative evaluation
Dependent	An excessive need to be taken care of, leading to submissive and clinging behavior and fears of separation
Obsessive-compulsive/ Anankastic	Preoccupation with orderliness, perfectionism, and mental and interpersonal control, at the expense of flexibility, empathic personal relations, and productivity
Organic	Disinhibited social behaviors, extreme emotional lability (apathy, euphoria or irritability), and cognitive disturbances such as paranoia, reduced perseverance of actions, and impaired language production; these symptoms stem from an objective cerebral disease, damage or dysfunction
Impulsive type	Impulsive behaviors without consideration of the consequences, some related to unstable mood and outbursts of anger and violence
Schizotypal	Social and interpersonal deficits marked by acute discomfort and reduced capacity for close relationships, as well as cognitive or perceptual distortions and eccentricities of behavior
Narcissistic personality disorder	Grandiosity (in fantasy or behavior), need for admiration, and lack of empathy

disorders (Stein et al., 2010). In particular, genetics research and translational neurobiology have revealed strong links between heritable biomarkers and the expression of certain psychological disorders (Kendler, 2012). As mentioned at the beginning of this chapter, the development of the DSM-5 involved heated debate over the dimensional vs. categorical nature of psychopathology, and premise of the existence of disease entities. Many members of the psychiatric community have been dissatisfied with the sole reliance on verbal report and clinical impressions to assign patients to relatively arbitrary diagnostic categories. This has led to much public debate around the publication of the DSM-5 that is likely to continue.

This debate and the new wave of translational research it sparked remains strong, and the stated goal of many influential psychological scientists is that future diagnostic criteria will increasingly include biomarkers of disorders (e.g. specific genes

Table 9 Description of neurodevelopmental disorders

Disorder	Clinical description
Intellectual disability	The individual fails to meet expected developmental milestones in several areas of intellectual functioning, such as reasoning, problem solving, planning, abstract thinking, judgment, academic learning, and learning from experience
Communication disorders (language disorder, speech sound disorder, social (pragmatic) communication disorder, and childhood-onset fluency disorder)	These disorders are characterized by deficits in the development and use of language, speech, and social communication; and by disturbances of the normal fluency and motor production of speech
Autism spectrum disorder	Persistent deficits in social communication and social interaction across multiple contexts, including deficits in social reciprocity, nonverbal communicative behaviors used for social interaction, and skills in developing, maintaining, and understanding relationships. In addition, restricted, repetitive patterns of behavior, interests, or activities have to be present
Attention-deficit/hyperactivity disorder (ADHD)	Impairing levels of inattention, disorganization, and/or hyperactivity-impulsivity across multiple contexts
Neurodevelopmental motor disorders (developmental coordination disorder, stereotypic movement disorder, and tic disorder)	Disorders of the nervous system that cause abnormal and involuntary movements
Specific learning disorder	Specific deficits in an individual's ability to perceive or process information efficiently and accurately. Characterized by persistent and impairing difficulties with learning foundational academic skills in reading, writing, and/or math

or patterns of neurochemistry) as they are unveiled by progressing research (Kapur, Phillips, & Insel, 2012). Though these goals are lofty and will take decades of dedicated research to achieve, progress has been made in identifying key biological characteristics of certain disorders. The Psychiatric Genetics Consortium has made great strides in identifying genetic markers of a number of disorders, including a recently published study identifying 108 independent genetic loci associated with schizophrenia (Ripke et al., 2014). However, it should be noted that the genetic variance to virtually any form of psychopathology is too small to make a meaningful contribution to nosology. Moreover, the premise of the latent disease entities (as implied by biological abnormalities and genetic markers) has to be critically examined. The complex network perspective offers a fresh new look at this issue.

Although the recent emphasis on identifying biomarkers has dominated many programs of psychological research, the goal of improving the classification of psychological disorders is not limited to biological or translational work. For example, some researchers have approached the issue of improving diagnostic validity by emphasizing a cross-informant approach. While child and adolescent psychology have more commonly utilized a multi-informant approach to the assessment of psychological symptoms (e.g. child, parent, and teacher reports), adult psychology

relies exclusively on client self-report. A meta-analysis examining 51,000 articles published over 10 years found that only 108 (0.2%) of these articles utilized a cross-informant approach to diagnosis; among these, the mean cross-informant correlation ranged between .304 and .681, indicating wide variability between diagnoses obtained using self- and informant-reports (Achenbach, Krukowski, Dumenci, & Ivanova, 2005). The authors argue that the classification of psychological disorders can be greatly improved simply by obtaining multiple symptom reports, a process that is arguably much easier and more cost-effective than a battery of biological tests. At the same time, most experts would agree that psychiatric nosology has to move beyond symptom report in order to make significant advances.

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