
Chapter 1

Conceptualizing DSM-5 Disorders in Children and Adolescents

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Introduction

The creation of the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (*DSM-5*; American Psychiatric Association [APA], 2013a), was a controversial and multifaceted process. Early drafts of the manual created considerable debate within the mental health field, as some argued that it was not as grounded in science as it should be, while others argued that it seemed to lack clinical utility. The initial changes appeared as if they would be substantial reworkings of the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision* (*DSM-IV-TR*), diagnoses and criteria, although they ended up not being quite as intense as originally thought.

Nonetheless, the *DSM-5* contains significant revisions, especially concerning the breadth and depth of the diagnostic criteria, inclusion of dimensional conceptualization, consolidation of many disorders, and acknowledgment of cultural factors. Although the *DSM-IV-TR* multi-axial system was eliminated, the new diagnostic categories provide more room for specifiers that will enable the clinician to provide a richer and more thorough description of the client's symptomatology. This should aid in both case conceptualization and treatment planning. These revisions also place a greater emphasis on changes across the lifespan and developmental issues. Although this emphasis certainly affects adult disorders, it has particular significance for disorders of childhood. Thus, it is important for the clinician to understand how these changes will affect clinical work with clients, particularly when working with children and adolescents.

This chapter will provide a framework for conceptualizing the array of mental health symptomatology that child and adolescent patients may present. The chapter includes an overview of the differences in definitions of a mental disorder across editions of the *DSM*, including the current distress/impairment criterion for arriving at a diagnostic decision. In addition, the information in this chapter illuminates how the developmental process and age-related factors play a role in diagnosis. We dedicate specific attention to the critical role of neurodevelopment in the conceptualization of a *DSM* diagnosis among children and adolescents and review differences in categories for *DSM* diagnoses.

Defining a Mental Disorder

A mental disorder is generally a construct that requires a clustering of identifiable cognitive, affective, behavioral, or physical symptoms resulting in marked functional impairment. Because psychiatric symptoms often manifest on a spectrum of severity, frequency, and duration, and may be present within both normal and abnormal human development, the definition of a mental disorder is complex. To understand this complexity, this section reviews the historical influences that define a mental disorder and how the definition has evolved since the publication of the *DSM-I* (1952).

HISTORY OF DEFINITION

Publication of the *DSM-I* in 1952 heralded the first classification of diagnostic categories and provided a nosological system consistent with the concepts of modern psychiatry and neurology. This diagnostic scheme generically used the term *disorder* to designate a group of related psychiatric syndromes, with each group further divided into more specific psychiatric conditions termed *reactions*. The use of the term *reaction* in the manual reflected the influence of Adolf Meyer's (president of the APA from 1927 to 1928) *psychobiological* view that mental disorders were reactions of the individual's personality struggle for adjustment to psychological, social, and biological stressors, rather than biologically specifiable natural disease entities. As such, mental disorders in this manual were divided into the following groups (APA, 1952, p. 9):

1. "Those in which there is disturbance of mental function resulting from, or precipitated by, a primary impairment of the function of the brain, generally due to diffuse impairment of brain tissue."
2. "Those which are the result of a more general difficulty in adaptation of the individual, and in which any associated brain function disturbance is secondary to the psychiatric disorder."

The *DSM-I*'s Diseases of the Psychobiologic Unit included disorders caused by, or associated with, impairment of brain tissue function (neurocognitive disorders), mental deficiency (intellectual developmental disorder), disorders of psychogenic origin (bipolar-related, schizophrenia spectrum, and other psychotic disorders), psychophysiologic disorders (somatic symptom disorders), psychoneurotic disorders (anxiety, dissociative, conversion, phobic, obsessive-compulsive, and depressive disorders), personality disorders (paraphilic, addictive, elimination, speech, learning, and personality disorders), and transient situational personality disorders (adjustment disorders). This nomenclature "enabled to offer a completely new classification in conformity with newer scientific and clinical knowledge, simpler in structure, easier to use and virtually identical with other national and international nomenclatures" (APA, 1952, p. 1), such as the *Standard Classified Nomenclature of Disease* the New York Academy of Medicine published in 1933.

In the development of the *DSM-II*, the product of an international collaborative effort that started in 1957, a decision was made to base the classification on the mental disorders section of the Eighth Revision of the World Health Organization's *International Classification of Diseases (ICD-8)* to reflect "the growth of the concept that the people of all nations live in one world" (APA, 1968, p. vii). Since this time, all *DSM* editions have

paralleled, with varying degrees of harmonization, the ongoing *ICD* revisions. Like the *DSM-I*, the second edition of the manual did not provide a formal definition of mental disorder. The *DSM-II* significantly expanded the *DSM-I*'s diagnostic nomenclature to include eight sexual deviations (i.e., homosexuality, fetishism, pedophilia, transvestitism, exhibitionism, voyeurism, sadism, and masochism), nine drug dependence classifications (i.e., opium, synthetic analgesics, barbiturates, other hypnotics and sedatives, cocaine, cannabis sativa, other psychostimulants, and hallucinogens), tic and other psychomotor disorders, encopresis, feeding disturbance, and cephalalgia.

Important nosological categories added in the *DSM-II* included Behavior Disorders of Childhood and Adolescence (i.e., hyperkinetic reaction, withdrawing reaction, over-anxious reaction, runaway reaction, unsocialized aggressive reaction, group delinquent reaction, and other reaction) and Conditions Without Manifest Psychiatric Disorder and Non-Specific Conditions (i.e., social maladjustments without manifest psychiatric disorder, marital maladjustment, social maladjustment, occupational maladjustment, dyssocial behavior, and other social maladjustment). Despite the marriage of the *DSM-II* with the *ICD-8* and its resulting name changes to some of the mental disorders (e.g., *chronic brain syndrome* becomes *organic brain syndrome*; *mental deficiency* becomes *mental retardation*; *schizophrenic reaction* becomes *schizophrenia*; *neurosis* replaces *reaction* for anxiety, dissociative, conversion, phobic, obsessive-compulsive, and depressive disorders; and *disorder of sleep* replaces *somnambulism*), "the change of label has not changed the nature of the disorder" (APA, 1968, p. ix)—thus the overall conceptualization of mental disorders in the *DSM-II* paralleled the conceptualization of mental disorders in the *DSM-I*.

The *DSM-III*, published in 1980, provided a descriptive approach that was atheoretical with regard to pathophysiological processes of mental disorders, and it reflected the importance of having common language between research investigators and clinical practitioners. Unlike the First and Second Editions, the *DSM-III* emphasized that accurate diagnostic assessment was essential to treatment planning and therefore included "such new features as diagnostic criteria, a multiaxial approach to evaluation, much-expanded descriptions of the disorders and many additional categories" (APA, 1980, p. 1). The *DSM-III* also differed from the *DSM-I* and the *DSM-II* in that clinical field trials, sponsored by the National Institute of Mental Health, were conducted to identify classification problems, test solutions to these problems, and evaluate diagnostic reliability among clinicians in diverse settings and of varying theoretical orientations. The *DSM-III* further noted that boundaries between disorders were discontinuous and lacked precision.

Most important, the *DSM-III* provided the first discussion in the manual on the subjective concept *mental disorder* by highlighting two important aspects (APA, 1980, p. 6):

1. "Each of the mental disorders is conceptualized as a clinically significant behavioral or psychological syndrome or pattern that occurs in an individual and that is typically associated with either a painful symptom (distress) or impairment in one or more important areas of functioning (disability)."
2. "There is an inference that there is a behavioral, psychological, or biological dysfunction, and that the disturbance is not only in the relationship between the individual and society."

Seven years later, the *DSM-III-R* (APA, 1987) retained this definition of *mental disorder*—sparking controversial dialogue among mental health professionals regarding the overall clinical utility of a definition focused on an individual's distress, disability, or dysfunction resulting from a psychiatric syndrome (Wakefield, 1992; Spitzer, 1999).

***DSM-IV* DEFINITION**

Published in 1994, the *DSM-IV* resulted from comprehensive and systematic reviews of the published literature, reanalysis of already collected data sets, and extensive issue-focused field trials. This manual also acknowledged the term *mental disorder* arbitrarily implied that a distinction exists between *physical* disorders (medical conditions) and *mental* disorders (psychological conditions)—although such is not the case. The manual further recognized that “the concept of mental disorder . . . lacks a consistent operational definition that covers all situations” and “the term persists in the title of *DSM-IV* because we have not found an appropriate substitute” (APA, 1994, p. xxi). As such, the *DSM-IV* retained the definition of *mental disorder* published in the *DSM-III* and the *DSM-III-R*; however this definition contained reordering of some words and addition of other words to the first half of the definition. In the *DSM-IV*, the phrase “that is typically associated with either a painful symptom (distress)” is changed to read “that is associated with present distress (e.g., a painful symptom),” and the phrase “or impairment in one or more important areas of functioning (disability)” is changed to read “or disability (i.e., impairment in one or more important areas of functioning).” Finally, the phrase “or with a significantly increased risk of suffering death, pain, disability, or an important loss of freedom” is added and is the concluding language of the first half of the definition. Similar to the *DSM-III* and the *DSM-III-R*, culturally sanctioned response patterns (e.g., the death of a loved one) were excluded from the *DSM-IV* definition of *mental disorder*, and deviant behavior had to be directly manifest to a symptom of a dysfunction in the individual.

The *DSM-IV-TR* (APA, 2000) retained the definition of *mental disorder* published in the *DSM-IV*. Grossman (2004) provided an analysis of this definition by challenging the implication that mental disorders are located within the individual and that mental disorders cannot be merely the result of environmental factors, as proposed in the *DSM-I*’s *psychobiological reactions*, and the associated ascriptions of responsibility upon the individual for preventing the mental disorder.

***DSM-5* DEFINITION**

The Fifth Edition of the *DSM*, published in 2013, acknowledged that capturing all aspects of all syndromes within the definition of *mental disorder* is challenging. Developed for clinical, public health, and research purposes, the *DSM-5*’s required elements that define *mental disorder* retain language from the *DSM-III*, the *DSM-III-R*, the *DSM-IV*, and the *DSM-IV-TR* that “significant dysfunction, distress, or disability in social, occupational, or other important activities are usually associated with mental disorders” (APA, 2013a, p. 20). Like its predecessors, the *DSM-5* excludes culturally expected responses to a common stressor from the definition and requires that social deviancy result directly from a dysfunction in the individual; and it requires clinical utility to “determine prognosis, treatment plans, and potential treatment outcomes” (APA, 2013a, p. 20). New to the *DSM-5* definition are the words *disturbance*, *cognition*, *emotion regulation*, and *developmental processes underlying mental functioning*.

The conceptualization of mental disorder in the latest manual further incorporates empirical evidence from “antecedent validators (similar genetic markers, family traits,

temperament, and environmental exposure), concurrent validators (similar neural substrates, biomarkers, emotional and cognitive processing, and symptom similarity), and predictive validators (similar clinical course and treatment response)” (APA, 2013a, p. 20). The most important conceptual change to the definition of mental disorder in the *DSM-5* is the significantly expanded use of *course* specifiers that communicate symptom progress (e.g., in partial remission, in full remission), *descriptive* specifiers that communicate symptom distinctiveness (e.g., with good to fair insight, in a controlled environment), and *severity* specifiers that communicate symptom intensity (e.g., mild, moderate, severe). Finally, the *DSM-5* conceptualization of *mental disorder* more richly encompasses gender differences, cultural issues, and developmental and life span considerations to facilitate a dimensional approach to clinical case formulation.

The *DSM-5* definition of *mental disorder* has already spurred discussion in the professional literature. First and Wakefield (2013) critiqued the requirement of establishing the presence of *dysfunction* in the individual and offered helpful requirements to ensure that the disorder meets the requirements of the definition of mental disorder. Some of these requirements include the following:

- A minimum duration and persistence
- That the frequency or intensity of a symptom exceed that seen in normal people
- Disproportionality of symptoms, given the context
- Pervasiveness of symptom expression across contexts, adding specific exclusions for contextual scenarios in which symptoms are best understood as normal reactions.

In 2013, Kecmanovic provided an overview of the extraordinary difficulty encountered when defining *mental disorder*. Kecmanovic championed the *DSM-5*’s continuation of the *DSM-III*’s addition of “clinical significance” to the definition of mental disorder to reduce diagnosing normative individuals as mentally disordered. However, an important critique this author provided is that the *DSM-5* definition does not operationalize how serious a dysfunction should be, or how much cognitions, emotions, or behavior should be dysfunctional, to qualify as clinically significant. Similarly, Bingham and Banner (2014) noted that relying on scientific theory or values to define *mental disorder* fails to safeguard the diagnostic status of individuals in oppressive societies and risks excessive inclusion of mental or behavioral states, such as same-sex attraction, that happen to be negatively valued in the individual’s social context. This criticism is targeted toward the *DSM-5*’s retained language from *DSM-III* that the definition of *mental disorder* restricts “socially deviant behavior (e.g., political, religious, or sexual) and conflicts that are primarily between the individual and society” and “results directly from a dysfunction in the individual” (APA, 2013a, p. 20).

The Clinical Significance Criterion in Diagnosis

In the *DSM-IV-TR*, the definition of mental disorder included the requirement that there be significant distress or impairment for a diagnosis to be made. The concept of impairment was quite straightforward: It typically related to social, emotional, or occupational dysfunction and could be fairly easily quantified. For example, someone diagnosed with

alcohol abuse or dependence frequently would report strained relationships with friends and family or having difficulties completing work responsibilities. These symptoms would be sufficient to satisfy the impairment requirement.

On the other hand, the concept of distress is quite murky. There is not an agreed upon universal definition within the mental health community, and it can be very difficult to quantify. For instance, children may deny feeling any distress, although they may exhibit acting-out behaviors. A trained clinician might view the behaviors as symptoms of distress, but that leaves it up to individual interpretation, which is problematic from a scientific perspective.

Another problem with using distress (or even impairment) as a diagnostic criterion is that the *ICD* criteria do not include it. When the authors of the *DSM-5* began developing the new manual, their original intent was to remove the clinical significance criterion from the diagnostic categories to align better with the *ICD-10*. However, a majority of the work groups for the various diagnoses found that it was simply not possible to remove the criterion. Thus, although the clinical significance criterion is not a requirement for a mental disorder in the *DSM-5*, it is a requirement for many diagnostic categories.

One prominent example of this is in the diagnosis of gender dysphoria in children (formerly gender identity disorder). The clinical significance criterion is listed as Criterion B after eight other symptoms are included under Criterion A. To make the diagnosis, the client has to display six of the eight symptoms from Criterion A, as well as exhibit significant distress or impairment. In fact, the presence of distress is particularly important in making this diagnosis because the name of the disorder was changed to reflect the unpleasant feelings that occur when there is a disconnect between one's assigned gender and expressed gender rather than focusing on identity issues.

Although some notable disorders do not require the clinical significance criterion (e.g., substance use, tic disorders, pyromania, etc.), most of the other disorders still require that the client experience distress or impairment. Despite the authors' attempts to better align the *DSM* diagnostic criteria with the *ICD*, it simply was not feasible in this version of the manual. Still, the decision not to require that the clinical significance criterion be met in the definition of mental disorder was a major shift in the *DSM-5*.

The Developmental Process

The *DSM-5* reflects important conceptual and practical differences between the *DSM-IV-TR* related to developmental impacts on presenting symptomology for children and adolescents. The former manual lumped the variations in the presentation of a disorder that are attributable to an individual's developmental stage in a subheading of the disorder descriptive text titled "Specific Culture, Age, and Gender Features." In contrast, the *DSM-5* carves out the developmental focus into a subheading of the disorder descriptive text titled "Development and Course." The "Diagnostic Features" section of the new manual further contains the following developmental focus additions:

- *Bipolar and related disorders* (i.e., "these symptoms are recurrent, inappropriate to the context, and beyond what is expected for the developmental level of the child"; "developmentally inappropriate sexual preoccupations"; "children of the same chronological age may be at different developmental stages"; "the child's symptoms must exceed what is expected in a given environment and culture for the child's developmental stage"; APA, 2013a, pp. 127–129).

- *Depressive disorders* (i.e., “temper outbursts are inconsistent with developmental level” and “developmentally appropriate mood elevation ... should not be considered as a symptom of mania or hypomania”; APA, 2013a, pp. 156).
- *Anxiety disorders* (i.e., “differ from developmentally normative fear or anxiety by being excessive or persisting beyond developmentally appropriate periods”; “anxiety exceeds what may be expected given the person’s developmental level”; “it is important to assess the degree of impairment and the duration of the fear, anxiety, or avoidance, and whether it is typical for the child’s particular developmental stage”; APA, 2013a, pp. 189, 191, & 200).
- *Obsessive-compulsive and related disorders* (i.e., “differ from developmentally normative preoccupations and rituals by being excessive or persisting beyond developmentally appropriate periods”; “individuals may experience developmental difficulties”; “easily distinguished from developmentally adaptive saving and collecting behaviors”; APA, 2013a, pp. 235, 240, & 249).
- *Trauma- and stressor-related disorders* (i.e., “developmentally inappropriate attachment behaviors”; “often co-occurs with developmental delays”; “developmental regression, such as loss of language in young children, may occur”; “reluctance to pursue developmental opportunities in adolescents”; APA, 2013a, pp. 266, 276–277).
- *Feeding and eating disorders* (i.e., “children and adolescents who have not completed growth may not maintain weight or height increases along their developmental trajectory”; “nor does it include developmentally normal behaviors”; “developmental impairments that reduce an infant’s responsiveness to feeding”; “associated developmental and functional limitations”; APA, 2013a, pp. 334–336).
- *Sleep-wake disorders* (i.e., “comorbidity during these developmental phases of the lifespan”; “associated with the normal developmental process”; APA, 2013a, p. 365).
- *Neurocognitive disorders* (i.e., “that are acquired rather than developmental” and “may be reflected in delays in reaching developmental milestones”; APA, 2013a, pp. 591, 626).

The *DSM-5* text furthermore includes developmental-related factors, such as symptom presentation and prevalence differences in certain age groups, specific to mental disorders. To assist with accurate clinical case formulation, the authors added these developmental-related factors to the diagnostic criteria, where applicable, as a note. Specific additions include the following:

- “Developmentally appropriate mood elevation, such as occurs in the context of a highly positive event or its anticipation, should not be considered as a symptom of mania or hypomania” (APA, 2013a, p. 156) for disruptive mood dysregulation disorder.
- “In children, the anxiety must occur in peer settings and not just during interactions with adults” (APA, 2013a, p. 202) for social anxiety disorder (social phobia).
- “Young children may not be able to articulate the aims of these behaviors or mental acts” (APA, 2013a, p. 237) for obsessive-compulsive disorder.
- “In children older than 6 years, repetitive play may occur in which themes or aspects of the traumatic event(s) are expressed”; “In children, there may be frightening dreams without recognizable content”; and “In children, trauma-specific reenactment may

occur in play” (APA, 2013a, pp. 271, 280–281) for both posttraumatic stress disorder and acute stress disorder.

- “For children younger than 5 years, the behavior should occur on most days for a period of at least 6 months ... For individuals 5 years or older, the behavior should occur at least once per week for at least 6 months” (APA, 2013a, p. 462) for oppositional defiant disorder.

The most prominent developmental focus additions to the *DSM-5* are reflected in pediatric-specific diagnostic criteria for posttraumatic stress disorder (PTSD) and gender dysphoria. Compared with children and adolescents older than 6 years, clinicians use distinct criteria to diagnose PTSD in this preschool subtype, such as language, to detect trauma events the child’s parent or primary caregiving figure experienced and three symptom clusters requiring four minimum of 18 possible symptoms to satisfy the diagnostic threshold (compared with four symptom clusters requiring six minimum of 20 possible symptoms to satisfy the diagnostic threshold). Diagnostic criteria language also focuses on constriction of play, socially withdrawn behavior, and “clinically significant distress or impairment in relationships with parents, siblings, peers, or other caregivers or with school behavior” (APA, 2013a, p. 274).

Examples of developmental issues related to a PTSD diagnosis in children and adolescents, compared with adults, include the following (APA, 2013a, p. 277):

- A wide range of emotional/mood or behavioral changes
- Focus on imagined interventions in play or storytelling
- Preoccupation with trauma and stressor reminders
- Experiencing co-occurring traumas
- Difficulty identifying onset of symptomatology in chronic circumstances
- Restricted exploratory behavior and reduced participation in new activities
- Judging themselves as cowardly

When diagnosing gender dysphoria, clinicians now use criteria specific to children (typically ages 2 to 10) that are distinct from criteria for adolescents (typically ages 11–17). For children with gender dysphoria, six of eight symptoms minimum are required for the diagnosis compared with two of six symptoms minimum required for adolescents—with criteria sets focused on cross-gender preferences manifest in dressing or clothing, roles in play, activities, toys, games, and playmates for children. Because young children are less likely to express extreme and persistent anatomic dysphoria and because child cognitive development is concrete in nature, gender dysphoria diagnostic criteria reflect this concreteness and are framed in a more behavioral manner for children than those for adolescents. The most important example of developmental issues relating to a gender dysphoria diagnosis include factors related to distress and impairment:

- A very young child may show signs of distress (e.g., intense crying) only when parents tell the child that he or she is “really” not a member of the other gender but only “desires” to be. Distress may not be manifest in social environments supportive of the child’s desire to live in the role of the other gender and may emerge only if the desire is interfered with. 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, 2013a, p. 455)

Age-Related Factors

The human life is expansive, covering vast and broad changes in the physical, biochemical, and emotional realms. When viewed on a continuum, the aging process is essentially a developmental process, with aging contributing greatly to many factors associated with mental and psychological health. The authors of the new diagnostic manual were determined to improve clinical utility through organizing the document on developmental and life span considerations (APA, 2013a) and shift from a strong emphasis on behavioral symptoms to more prominence placed on developmental processes (Insel, 2014). In the development of the *DSM-5*, the human life span continuum played a significant role in the organizational structure and classification of clinical disorders (Zupanick, 2013). Additionally, a distinct change in the publication of the *DSM-5* is the inclusion of age-related factors within the diagnostic criteria section of each disorder.

MENTAL HEALTH SYMPTOMOLOGY ACROSS THE LIFE SPAN

Within the newly accentuated age-related organization of the *DSM-5*, mental health symptomology is seen as occurring developmentally over the entire life span. The human life span covers a broad and vast expanse, both within the single life of an individual and across the incredible diversity of over 7 billion collective human beings walking the earth. Although the *DSM-5* does not overtly make the claim, its intention is to identify and delineate the symptomology of all current mental health issues across the vast human domain. With the new emphasis on developmental processes, the *DSM-5* is trying to view mental health symptomology as factors interacting as a fluid process of growth, change, and adaptation. Factors considered include the age at which disorders first occur, how diagnoses and symptoms may change over the life span, and how disorders may evolve into new disorders over the life span (APA, 2013d).

AGE-RELATED FACTORS AND DIAGNOSES SPECIFIC TO CHILDREN AND ADOLESCENTS

Age-related factors also contribute greatly to mental health diagnoses specific to children and adolescents. The authors of the *DSM-5* made discernible efforts to provide more precise descriptions of disorders that accurately reflect the most recent scientific data on matters such as onset, etiology, prognosis, and treatment of child and adolescent conditions (APA, 2013b). Age-related factors contribute to all aspects of the diagnostic spectrum, from birth to death. The distribution of mental illness varies with many factors, including age, socioeconomic status, gender, and locale, with the prevalence of mental illness higher in children (Lakhan & Ekundayò, 2015). Although mental health issues are diagnosed more frequently in children and adolescents, growing evidence has emerged that has shown declines in the prevalence of mental illness over the adult years and with

age (Charles & Carstensen, 2009; Hudson, 2012). Age-related factors, whether onset, frequency, or other diagnostic variables, affect the assessment and diagnosis of mental illness in children and adolescents. Many of the age-related phenomena are in the new neurodevelopmental disorders chapter of the *DSM-5*, addressing disorders commonly formed in the early years of human life.

PREVALENCE WITH CHILDREN AND ADOLESCENTS

The prevalence of mental illness among children and adolescents varies depending on a number of conditions. The World Health Organization ([WHO], 2005) found prevalence rates of psychiatric disorders ranged from 12 percent to 29 percent worldwide, with a 21 percent rate in the United States. Similarly, the National Institute of Mental Health (n.d.) found that just over 20 percent of U.S. children either currently, or at some point in their life, suffer from a debilitating mental disorder. Regrettably, the vast majority of children and adolescents suffering from mental health issues go untreated.

DSM-5 and Life Span Approach to Diagnosis

The authors of the *DSM-5* purposefully organized the document in a linear fashion, consistent with the chronological timeline of the human life span. Evidence of this design is in the *DSM-5*'s chapter structure, text outline, and criteria revisions, consistently identifying age and development as part of the clinical diagnosis and classification process (Varley, 2013). The manual begins with disorders thought to reflect clinical processes that develop early in life, proceeds to disorders that present in adolescence and young adulthood, and ends with disorders more common in adulthood and later life (APA, 2013). Accordingly, the neurodevelopmental disorders (disorders most likely to occur early in the life span) are the first in the sequence of disorders covered in the manual (p. 31), whereas neurocognitive disorders (disorders most likely to occur later in the life span) are covered much later (p. 591). Other examples of disorders that are covered later in the manual, hence generally occurring later in the life span, are personality disorders (generally a condition of adulthood) and paraphilic disorders (generally a condition of postpubescence).

Within the sphere of child and adolescent mental health disorders, this chronological continuum also occurs. Immediately following the neurodevelopmental disorders are the schizophrenia spectrum and other psychotic disorders, which contemporary research is demonstrating occur earlier in the life span (Eranti, MacCabe, Bundy, & Murray, 2013; Liu, Norman, Manchanda, & De Luca, 2013). Following these disorders are bipolar and related disorders and depressive disorders, continuing progressively through the life span and average onset of the disorders.

DSM-5 Changes in Age-Related Issues

Numerous and significant changes are found in the *DSM-5* related to both developmental and age-related issues. Most prominently, the *DSM IV-TR* chapter classification Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence is now completely reconceptualized in the manual. Within this previous chapter classification, 10 disorders were disseminated into other chapter classifications of the *DSM-5*, with the remaining disorders found in the new Neurodevelopmental Disorders chapter classification.

Table 1.1 provides a comprehensive table listing the changes from the *DSM-IV-TR*'s Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence to their new location in the *DSM-5*.

TABLE 1.1 The Transition or Relocation of the *DSM-IV-TR*'s Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence to Their New Position in the *DSM-5*

<i>DSM-IV-TR</i> <i>Disorders Usually First Diagnosed in</i> <i>Infancy, Childhood, or Adolescence</i>	<i>DSM-5</i> <i>Location in DSM-5:</i> <i>New chapters and titles noted</i>
Mental Retardation Mild, Moderate, Severe, Profound, Severity Unspecified	Neurodevelopmental Disorders Intellectual Disability Mild, Moderate, Severe, Profound Global Developmental Delay (new) Unspecified Intellectual Disability
Learning Disorders Reading Disorder Mathematics Disorder Disorder of Written Expression Learning Disorder NOS [Not Otherwise Specified]	Neurodevelopmental Disorders Specific Learning Disorder With Impairment in Reading With Impairment in Written Expression With Impairment in Mathematics (Mild, Moderate, Severe)
Motor Skill Disorder Developmental Coordination Disorder	Neurodevelopmental Disorders Developmental Coordination Disorder
Communication Disorders Expressive Language Disorder Mixed Receptive-Expressive Language Disorder Phonological Disorder Stuttering Communication Disorder NOS	Neurodevelopmental Disorders Language Disorder Speech Sound Disorder Childhood-Onset Fluency Disorder (Stuttering) Social (Pragmatic) Communication Disorder Unspecified Communication Disorder
Pervasive Developmental Disorders Autistic Disorder Rett's Disorder Childhood Disintegration Disorder Asperger's Disorder Pervasive Developmental Disorder NOS (PDD NOS)	Neurodevelopmental Disorders Autism Spectrum Disorder (Rett's Disorder, Childhood Disintegration Disorder, Asperger's Disorder, Pervasive Developmental Disorder—Eliminated)
Attention Deficit and Disruptive Behavior Disorders Attention-Deficit/Hyperactivity Disorder Combined Type Predominantly Inattentive Type Predominantly Hyperactive-Impulsive Type Attention-Deficit/Hyperactivity Disorder NOS Conduct Disorder Oppositional Defiant Disorder Disruptive Behavioral Disorder NOS	Neurodevelopmental Disorders Attention-Deficit/Hyperactivity Disorder Combined Presentation Predominantly inattentive presentation Predominantly hyperactive/impulsive presentation Other Specified Attention-Deficit/Hyperactivity Disorder Unspecified Attention-Deficit/Hyperactivity Disorder
Feeding and Eating Disorders of Infancy or Early Childhood Pica Rumination Disorder Feeding Disorder of Infancy or Early Childhood	Feeding and Eating Disorders (new chapter) Pica Rumination Disorder Feeding Disorder of Infancy or Early Childhood renamed to Avoidant/ Restrictive Food Intake Disorder

(continued)

TABLE 1.1 (continued)

<i>DSM-IV-TR</i> <i>Disorders Usually First Diagnosed in</i> <i>Infancy, Childhood, or Adolescence</i>	<i>DSM-5</i> <i>Location in DSM-5:</i> <i>New chapters and titles noted</i>
Tic Disorders Tourette’s Disorder Chronic Motor or Vocal Tic Disorder Transient Tic Disorder Tic Disorder NOS	Neurodevelopmental Disorders Motor Disorders Tic Disorders Tourette’s Disorder Persistent (Chronic) Motor or Vocal Tic Disorder Provisional Tic Disorder Other Specified Tic Disorder Unspecified Tic Disorder
Elimination Disorders Encopresis Enuresis	Elimination Disorders (new chapter) Enuresis Encopresis
Other Disorders of Infancy, Childhood, or Adolescence Separation Anxiety Disorder Selective Mutism Reactive Attachment Disorder of Infancy or Early Childhood Stereotypic Movement Disorder Disorder of Infancy, Childhood, or Adolescence NOS	Anxiety Disorders Separation Anxiety Disorder Selective Mutism Trauma and Stressor-Related Disorders Reactive Attachment Disorder Neurodevelopment Disorders Motor Disorders Stereotypic Movement Disorder

The *DSM-5*’s diagnostic criteria of PTSD demonstrate one of the most significant inclusions of age-related phenomena in the new manual. In addition to the expansive changes in criteria from the *DSM-IV-TR* to the *DSM-5*, PTSD now emphasizes a developmental perspective with diagnostic thresholds lower for children and adolescents than for adults (APA, 2013). Additionally, distinct criteria have been added for children with PTSD and ages 6 and younger. For example, for children ages 6 or younger, the *DSM-5* provides distinct alterations in arousal and reactivity associated with the traumatic events, different from older children and adults. These symptoms include irritable behaviors and angry outbursts, hypervigilance, exaggerated startle response, problems with concentration, and sleep disturbance. Overt and higher-processing behaviors, often seen in older children and adults, are not as concrete or formalized within the developmental stages of children under age 6, therefore creating the need to modify these criteria for the younger age group.

Neurodevelopment and Neurodevelopmental Disorders

The introduction of the neurodevelopmental disorders chapter in the *DSM-5* brings significant attention and consideration to the area of neurodevelopment. Neurodevelopment and neuroprocesses have emerged as important areas of both clinical and research elements in the social sciences (Kindsvatter & Geroski, 2014). Once predominantly the work of

the fields of neurology and neuropsychology, mental health professionals are now finding themselves assessing, diagnosing, and treating an array of neurodevelopmental issues identified in the *DSM-5*. Neurodevelopmental disorders' onsets are usually found in childhood but often persist into adulthood, resulting in impairment or delay in various central nervous system functioning. The disorders rarely experience remission or relapses and commonly follow a stable course over time (WHO, 2014).

The assessment, diagnosis, and treatment of neurodevelopmental disorders is very challenging, because early developmental trajectories are inherently unpredictable, influenced by complex genetic, biological, environmental, and psychosocial factors (Insel, 2014). Recent advances in pediatric neuroscience have revealed increasingly complex systems that continue to evolve and change (Fine & Sung, 2014). A diverse and comprehensive understanding of the concepts and processes associated with neurodevelopment is needed for a deep understanding of child and adolescent issues in the new diagnostic manual.

DEFINITION OF NEURODEVELOPMENT

Various scientific and technical terminologies are applicable when defining neurodevelopment. Simply stated, neurodevelopment is generally understood as the series of processes and progressions that generate and form the nervous system throughout the human life span. Much of the dynamic development occurs in youth, especially the first several years of life (Perry, 2008). A more detailed definition identifies neurodevelopment as a complex, multifaceted, dynamic process that involves gene–environment interactions resulting in both short- and long-term changes in gene expression, cellular interactions, circuit formation, neural structures, and behaviors over time (National Institute of Mental Health [NIMH], 2014). Emerging research continues to demonstrate that neurodevelopment includes a complex interaction between genetic inheritance and environmental factors, mediated by epigenetic processes, that forms and shapes the brain from conception to adulthood (Fine & Sung, 2014).

Neurodevelopmental disorders are identified as such because of the onset of the condition occurring in the developmental period of the individual's life span.

THE NEURODEVELOPMENTAL PROCESS

Healthy and unobstructed neurodevelopment has long been regarded as essential for proper life functioning. Although research continues to emphasize the importance of the complex series of developmental progressions that shape early life directions, our understanding of these processes remains insufficient (NIMH, 2014). Normal neurological development usually follows a consistent sequence in every person and adheres to these stages throughout the developmental process, beginning with conception and continuing throughout the human life span. Although the *DSM-5* views the neurodevelopmental disorders as occurring during childhood, the manual contains no references to the ages when the neurodevelopmental period ends and adulthood begins (Wills, 2014). According to the Environmental Protection Agency ([EPA], 2013) neurodevelopmental disorders affect up to 15 percent of children in the United States ages 3 to 17 years. Of all of these conditions, attention-deficit/hyperactivity disorder and learning disabilities are the most common.

Table 1.2 provides a table of neurodevelopment stages within the mental health of children and adolescents and identifies important cognitive, social, and emotional phenomena, as well as potential signs of impairment during these stages.

TABLE 1.2 Neurodevelopmental Stages and Mental Health (Based in Part on the Institute for Human Services for the Ohio Child Welfare Training Program, 2007)

<i>Age</i>	<i>Cognitive Development</i>	<i>Social Development</i>	<i>Emotional Development</i>	<i>Signs of Delays/ Disturbances</i>
0 to 6 months	Sensory-motor exploration of environment; significant brain cell development; curiosity, coos	Seeks comfort from parent; responsive to social stimuli; facial expression of emotion	Learns trust in self and caretakers; attachment; craves nurturance; complete dependence	Delays in gross and fine motor skills; poor muscle tone; colicky
6 to 12 months	Babbles, begins to imitate sounds; discriminates between parents; basic problem solving	Socially interactive; some stranger anxiety; separation anxiety; solitary play	Frequent giggles and laughing; occasional feelings of upset or distress	Problems with attachment; overly clingy; unable to be comforted or soothed
12 to 24 months	Recognition; responding to verbal cues; single word use; receptive language; imitating complex behaviors	Peer imitation and learning; some parallel and symbolic processing; play with peers and caregivers	Stubborn, defiant; displays of anger	Language and speech delays, absence of speech; unable to discriminate significant people
2 to 4 years	Begins to understand sequences; multiple-step tasks and processes	Invested play with others; strong attachments to parental figures or caregivers; more trust in others	Pride, embarrassment; recognizes distress and pain in others; emotional attachments to objects; need for security	Passive, withdrawn, apathetic; depressed, anxious, fearful
5 to 8 years	Use of language as primary communication tool; recognizes others' perspectives	Understands concept of right and wrong; situation-specific friendships; relies upon rules or norms for appropriate behavior	Increased self-esteem; strategies for dealing with emotions more diverse; sensitive to others' opinions	Feelings of worthlessness; immature play; unable to reciprocate emotions; oppositional defiant behaviors
9 to 12 years	Recognizes difference between behavior and intent; can understand and consider others' points of view	Rules can be bended or negotiated; begins to understand social roles; takes on more responsibility; begins loyalty to friends	General understanding and curiosity of sex and gender differences; sexual activity can begin; experiences more complicated emotions	Anger outbursts; low frustration tolerance; poor impulse control; anxiety; poor peer relations; strong mistrust; emotional disturbances; conduct disturbances

(continued)

TABLE 1.2 (continued)

<i>Age</i>	<i>Cognitive Development</i>	<i>Social Development</i>	<i>Emotional Development</i>	<i>Signs of Delays/ Disturbances</i>
12 to 14 years	Thinks hypothetically; considers consequences; considers possibilities; begins to think more logically	Grows distant from parents; strong identity with peer group; need to be independent from adults; indifference about romantic relationships; sense of pride	Self-conscious about physical appearance, development and body image; sensitive to parental criticism; risky behaviors begin; rejection of adult standards; strong reliance on peer group for emotional support	Emotional disturbances (mood swings, anger, depression, and anxiety); identity confusion; antisocial behavior
15 to 18 years	Thinks more abstractly and hypothetically; deeper insight and perspective; systematic problem solving; cognitions affected by emotions	Emphasis on loyalty and trust in friendships; increased morality; begins sexual activity	Strong identity formation; begins to see self as whole; concept of self-image	Engaging in self-destructive and sabotaging behaviors; unable to maintain peer relations; difficulty managing emotions; anti-social behaviors

THE ROLE OF NEURODEVELOPMENT WITHIN MENTAL HEALTH

Healthy neurodevelopment is essential for the mental health of all individuals. Because the human brain is the organ that governs most behavioral, social, cognitive, and emotional functioning, abnormal neurodevelopment can result in altered functioning of the brain systems or various states of psychopathology (Perry, 2008). Accordingly, the specific nature of the mental health dysfunction is a result of which areas, networks, and stages are altered. A key element in understanding the nature of a neurodevelopmental disorder is identifying the etiology or cause of the malady (Thome, Drossos, & Hunter, 2013). Most neurodevelopmental disorders have multiple etiological contributors, including genetic, biological, psychosocial, and environmental (EPA, 2013). The following list identifies some of the multiple causes of neurodevelopmental disorders:

- Genetic Causes
 - Fragile X syndrome
 - Down's syndrome
 - Rett syndrome
- Biological Causes
 - Traumatic brain injury
 - Disease
 - Nutritional factors

- Psychosocial Causes
 - Emotional trauma
 - Neglect
 - Abuse/Maltreatment
- Environmental
 - Exposure to toxins
 - Alcohol, tobacco, drugs (in utero)
 - Mercury
 - Lead
 - Chaotic family (divorce, foster care, substance abuse, lack of nurturance)
 - Poverty

NEURODEVELOPMENTAL, BEHAVIORAL, AND INTELLECTUAL SYMPTOMOLOGY

It is also important to differentiate neurodevelopmental disorders from intellectual disability and neurocognitive disorders, both distinct disorders identified in the *DSM-5*. The difference can often be found in separating the behavioral elements of the neurodevelopmental disorders from the intellectual symptomology found in the same category of disorders. Although intellectual disability and specific learning disorders are in the neurodevelopmental disorders chapter, they occupy a distinct process from the other disorders in the chapter because of deficits in cognitive capacity beginning in the developmental period (APA, 2013b). Another change in the *DSM-5*, and a distinction inherent in the intellectual disabilities, is the departure from relying exclusively on IQ scores as the determinant of disability. Although IQ testing can still assist in scaling the level of intellectual disability (*DSM-IV-TR*'s cutoff for mental retardation was 70), new criteria resulting from the assessment of adaptive functioning levels are also needed to determine severity (Moran, 2013).

Additionally, neurocognitive disorders are similar to but distinct from the neurodevelopmental disorders. Neurocognitive disorders are conceptualized as deficits in cognitive function that are *acquired* rather than *developmental* (APA, 2013a). The assessment and diagnostic process related to neurocognitive disorders often involves the determination of the cause, or etiology, of the disorder. Clinicians must also consider age-related factors in differentiating these two classifications. For example, an individual may demonstrate symptoms of communication impairment at an advanced age because of the onset of Alzheimer's disease. The communication issue occurs through the acquiring of the disease. In contrast, a child can develop a similar issue with communication because of the progression of autism spectrum disorder. The latter communication issue occurs through the development of the disorder.

NEURODEVELOPMENTAL DISORDERS AND THE *DSM-5*

The *DSM-5* defines *neurodevelopmental disorders* as "a group of conditions with onset in the developmental period" (APA, 2013a, p. 31). The manual describes the variety of disorders as occurring early in the developmental years (often before grade school), and resulting in an array of impairments in personal, social, academic, or occupational

functioning (APA, 2013a). The neurodevelopmental disorders cover a vast and expansive range, from extremely low-functioning, catatonic behavior, such as severe autistic spectrum disorder, to incredibly high functioning, such as a minor tic disorder. Such a broad expanse creates incredible diversity in the family of disorders, requiring an ongoing awareness and competency to assess, diagnose, and treat the conditions adequately.

A particular diagnostic challenge facing clinicians when interacting with the neurodevelopmental disorders is the extremely high frequency of comorbidity and dual diagnosis (a phenomenon discussed further in Chapter 2). The combinations of behavioral, psychological, and functional symptom presentations, in addition to the cultural and environmental factors, all exist on a continuum across development. This multitude of factors creates a complex clinical profile for many children with neurodevelopmental disorders, leading to high levels of diagnostic comorbidity (Thome et al., 2013). It is common for a child to receive multiple diagnoses within the area of neurodevelopmental disorders. For example, Tommy is a 6-year-old boy struggling academically, behaviorally, and socially in the first grade. Behavioral observations show he is having a hard time sitting still and difficulty concentrating and is failing most classes. He is also very socially isolated and struggles with connecting with peers and engaging in play. Upon advanced psychological testing, Tommy is diagnosed with attention-deficit/hyperactivity disorder, specific learning disorder with impairment in reading, and mild autistic spectrum disorder.

See Table 1.3 for a list of the neurodevelopmental disorders as identified in the *DSM-5*.

TABLE 1.3 *DSM-5 Classification of Neurodevelopmental Disorders*

<i>Category/Disorder</i>	<i>Subtype/Disorder</i>
Intellectual Disabilities	• Intellectual Disability (Intellectual Developmental Disorder) ◦ Mild ◦ Moderate ◦ Severe ◦ Profound • Global Developmental Delay • Unspecified Intellectual Disability (Intellectual Developmental Disorder)
Communication Disorders	• Language Disorder • Speech Sound Disorder • Childhood-Onset Fluency Disorder (Stuttering) • Social (Pragmatic) Fluency Disorder • Unspecified Communication Disorder
Autistic Spectrum Disorder	• Autistic Spectrum Disorder ◦ Specify: ◦ Association with other condition (medical, genetic, environmental, another neurodevelopmental, mental, behavioral disorder) ◦ Current severity — With or without accompanying impairment (intellectual, language); with catatonia.

(continued)

TABLE 1.3 (continued)

Category/Disorder	Subtype/Disorder
Attention-Deficit/Hyperactivity Disorder	• Combined Presentation • Predominantly inattentive presentation • Predominantly hyperactive/impulsive presentation • Other Specified Attention-Deficit/Hyperactivity Disorder • Unspecified Attention-Deficit/Hyperactivity Disorder
Specific Learning Disorder	• Specific Learning Disorder ◦ Impairment in reading ◦ Impairment in written expression ◦ Impairment in mathematics
Motor Disorders	• Development Coordination Disorder • Stereotypic Movement Disorder • Tic Disorders ◦ Tourette’s Disorder ◦ Persistent (Chronic) Motor or Vocal Tic Disorder ◦ Provisional Tic Disorder ◦ Other Specified Tic Disorder ◦ Unspecified Tic Disorder
Other Neurodevelopmental Disorders	• Other Specified Neurodevelopment Disorder • Unspecified Neurodevelopmental Disorder

Changes in Diagnostic Categories from the *DSM-IV-TR* to the *DSM-5*

As discussed in this chapter, the *DSM-5* represents a fundamental shift in mental disorder classification and conceptualization. Some of these clinical modifications include greater inclusion of culture issues and gender issues within diagnostic criteria and descriptors. Expanded discussion of these factors in the latest diagnostic manual enhances clinical case formulation and individualized treatment planning—essential elements to conceptualization. When clinicians engage in assessment and diagnosis of mental disorders in children and adolescents, they are likely to appreciate an additional change reflected in the *DSM-5* that aligns with current scientific evidence: the infusion of neurobiological validators (i.e., antecedent, concurrent, and prospective). Inclusion of these biopsychiatric markers facilitated the *DSM-5*’s new organizational structure (the way in which disorders are grouped) with the goal of improving clinical utility and disorder classification relationships based upon shared symptoms, shared genetic and environmental risk factors, and shared neural substrates. “By reordering and regrouping the existing disorders, the revised structure is meant to stimulate new clinical perspectives and to encourage researchers to identify the psychological and physiological cross-cutting factors that are not bound by strict categorical designations” (APA, 2013a, p. 10). Clinicians will notice how harmonization with the *ICD-10*, a dimensional approach to diagnosis, and developmental and life

span considerations generate an empirically supported clinical framework to effectively understand internalizing (depression, anxiety, and somatic symptoms) and externalizing factors (impulsivity, disruptive conduct, and substance use symptoms) in child and adolescent mental disorders. They will also notice that mental disorders are sequenced developmentally (typical age of onset) in the *DSM-5* classification chapters (e.g., depressive disorders, anxiety disorders, trauma- and stressor-related disorders, feeding and eating disorders, and disruptive, impulse-control, and conduct disorders).

OVERVIEW OF THE CHANGES THAT OCCURRED SPECIFIC TO CHILDREN AND ADOLESCENTS

The *DSM-5* neurodevelopmental disorders chapter represents the most substantial changes in the entire manual. Most of the mental disorders from the previously titled *DSM-IV-TR* chapter “Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence” are renamed, relocated, reconceptualized, or removed. Specifically, pica, rumination disorder, and feeding and eating disorder of infancy or early childhood located in the *DSM-IV-TR* subcategory Feeding and Eating Disorders of Infancy or Early Childhood are relocated to the new *DSM-5* feeding and eating disorders chapter; and eating disorder of infancy or early childhood is renamed and reconceptualized as avoidant/restrictive food intake disorder and relocated to this chapter. Encopresis and enuresis, located in the *DSM-IV-TR* subcategory Elimination Disorders are relocated to the new *DSM-5* elimination disorders chapter. Oppositional defiant disorder and conduct disorder, located in the *DSM-IV-TR* subcategory Attention-Deficit and Disruptive Behavior Disorders, are relocated to the new *DSM-5* disruptive, impulse-control, and conduct disorders chapter. Separation anxiety disorder and selective mutism, located in *DSM-IV-TR* subcategory Other Disorders of Infancy, Childhood, or Adolescence, are relocated to the *DSM-5* Anxiety Disorders chapter. Also located in this *DSM-IV-TR* subcategory, reactive attachment disorder of infancy or early childhood is reconceptualized and renamed as reactive attachment disorder and disinhibited social engagement disorder—with both disorders being relocated to the new *DSM-5* trauma- and stressor-related disorders chapter.

The *DSM-IV-TR* subcategory and diagnosis Mental Retardation is renamed and reconceptualized in the *DSM-5* to intellectual disability (intellectual developmental disorder) and is located in the new subcategory Intellectual Disabilities. The disorder rename parallels the *ICD*’s use of *intellectual developmental disorder* and is the preferred term of the American Association on Intellectual and Developmental Disabilities.

Moreover, a federal statute in the United States (Public Law 111–256, Rosa’s Law) replaces the term mental retardation with intellectual disability, and research journals use the term intellectual disability. Thus, intellectual disability is the term in common use by medical, educational, and other professions and by the lay public and advocacy groups. (APA, 2013a, p. 33)

For children who are unable to complete systematic assessments of intellectual functioning because they are too young (e.g., under age 5), clinicians can use the new *DSM-5* diagnosis global developmental delay to indicate deficient developmental milestones in several areas of intellectual functioning. This mental disorder does not contain diagnostic criteria and is to be used until the child presents as a reliable candidate for standardized testing (i.e., over age 5).

The *DSM-IV-TR* Communication Disorders subcategory is retained in the *DSM-5*; however, the *DSM-IV-TR* expressive language disorder and mixed receptive-expressive language disorder are reconceptualized into the *DSM-5* language disorder, and the *DSM-IV-TR* phonological disorder is renamed and reconceptualized in the *DSM-5* to speech sound disorder. The *DSM-IV-TR* stuttering diagnosis is reconceptualized and renamed to childhood-onset fluency disorder (stuttering). Social (pragmatic) communication disorder, also referred to as pragmatic language impairment in the scientific literature, is new to the *DSM-5*. This disorder classifies persistent difficulties in the social uses of verbal and nonverbal communication in children typically over age 5. This syndrome is distinct from language disorder and speech disorder because syntax, articulation, pronunciation, and fluency, are intact; and this syndrome cannot be diagnosed in the presence of restricted repetitive behaviors, interests, and activities—key psychiatric markers of autism spectrum disorder.

The *DSM-IV-TR* subcategory Pervasive Developmental Disorders is renamed Autism Spectrum Disorder and contains the newly reconceptualized *DSM-5* autism spectrum disorder. This classification “encompasses disorders previously referred to as early infantile autism, childhood autism, Kanner’s autism, high-functioning autism, atypical autism, pervasive developmental disorder not otherwise specified, childhood disintegrative disorder, and Asperger’s disorder” (APA, 2013, p. 53). The *DSM-IV-TR*’s Rett’s disorder and childhood disintegrative disorder are removed as classifications in the *DSM-5* and become descriptive specifiers, when applicable, to autism spectrum disorder.

Grouped in the *DSM-IV-TR* subcategory Attention-Deficit and Disruptive Behavior Disorders, attention-deficit/hyperactivity disorder is located in the new *DSM-5* subcategory Attention-Deficit/Hyperactivity Disorder.

The *DSM-5* removes the *DSM-IV-TR* reading disorder, mathematics disorder, disorder of written expression, and learning disorder not otherwise specified located in the *DSM-IV-TR* subcategory Learning Disorders and makes these conditions descriptive specifiers to the newly reconceptualized *DSM-5* specific learning disorder located in the new subcategory Specific Learning Disorder.

The *DSM-IV-TR* subcategory Motor Skills Disorder is renamed Motor Disorders in the *DSM-5* and contains the renamed and reconceptualized developmental coordination disorder. Stereotypic movement disorder, located in the *DSM-IV-TR* subcategory Other Disorders of Infancy, Childhood, or Adolescence, is reconceptualized and relocated to this new *DSM-5* subcategory. Located in the *DSM-IV-TR* subcategory Tic Disorders, Tourette’s disorder is relocated to the *DSM-5* subcategory Motor Disorders; chronic motor or vocal tic disorder is renamed to persistent (chronic) motor or vocal tic disorder and relocated to this new *DSM-5* subcategory; and transient tic disorder is reconceptualized and renamed to provisional tic disorder and is relocated to this new *DSM-5* subcategory.

One of the most important additions to the neurodevelopmental disorders in *DSM-5* is that clinicians may include the descriptive specifier *associated with a known medical or genetic condition or environmental factor* to any of the classifications in this chapter.

This specifier gives clinicians an opportunity to document factors that may have played a role in the etiology of the disorder, as well as those that might affect the clinical course. Examples include genetic disorders, such as fragile X syndrome, tuberous sclerosis, and Rett syndrome; medical conditions such as epilepsy; and environmental factors, including very low birth weight and fetal alcohol exposure. (APA, 2013a, pp. 32–33)

See Table 1.4 for a listing of new *DSM-5* disorder titles for children and adolescents.

TABLE 1.4 New *DSM* Disorder Titles for Children and Adolescents

-
- Intellectual Disability (Intellectual Developmental Disorder)
 - Global Developmental Delay
 - Language Disorder
 - Speech Sound Disorder
 - Childhood-Onset Fluency Disorder (Stuttering)
 - Social (Pragmatic) Communication Disorder
 - Autism Spectrum Disorder
 - Specific Learning Disorder
 - Disruptive Mood Dysregulation Disorder
 - Persistent Depressive Disorder (Dysthymia)
 - Premenstrual Dysphoric Disorder
 - Social Anxiety Disorder (Social Phobia)
 - Agoraphobia
 - Trichotillomania (Hair-Pulling Disorder)
 - Excoriation (Skin-Picking) Disorder
 - Reactive Attachment Disorder
 - Disinhibited Social Engagement Disorder
 - Depersonalization/Derealization Disorder
 - Somatic Symptom Disorder
 - Illness Anxiety Disorder
 - Conversion Disorder (Functional Neurological Symptom Disorder)
 - Avoidant/Restrictive Food Intake Disorder
 - Binge-Eating Disorder
 - Insomnia Disorder
 - Hypersomnolence Disorder
 - Non–Rapid Eye Movement Sleep Arousal Disorders
 - Nightmare Disorder
 - Rapid Eye Movement Sleep Behavior Disorder
 - Restless Legs Syndrome
 - Gender Dysphoria
 - Substance Use Disorders
-

EXAMPLE OF NEW CRITERIA INCLUDING SEVERITY INDEX

Characterized by deficits in general mental abilities, intellectual disability (intellectual developmental disorder) receives new criteria and severity indices in the *DSM-5*. Modifications from *DSM-IV-TR* (APA, 2000, p. 49) to *DSM-5* (APA, 2013a, p. 33) for this disorder include the following:

Criterion A—changed the focus from “significantly subaverage intellectual functioning, defined by an IQ of approximately 70 or below,” to a focus on “deficits in intellectual functions, such as reasoning, problem solving, planning, abstract thinking, judgment, academic learning, and learning from experience, confirmed by both clinical assessment and individualized, standardized intelligence testing.”

Criterion B—changed from “Concurrent deficits or impairments in present adaptive functioning” to “Deficits in adaptive functioning that result in failure to meet developmental and sociocultural standards for personal independence and social responsibility.” Language added to this criterion includes “Without ongoing support, the adaptive deficits limit functioning.” Finally, Criterion B threshold was lowered from “at least two of the following areas” to “in one or more activities of daily life ... across multiple environments ...”

Criterion C—changed from “the onset is before age 18 years” to “onset of intellectual and adaptive deficits during the developmental period.”

In *DSM-IV-TR*, severity index of mental retardation was determined by the child’s IQ score as follows:

Mild—IQ level 50 to 55 to approximately 70

Moderate—IQ level 35 to 40 to 50 to 55

Severe—IQ level 20 to 25 to 35 to 40

Profound—IQ level below 20 or 25

Moreover, it was possible to diagnose mental retardation in children with IQ scores between 71 and 75 if they displayed significant deficits in adaptive behavior characteristic of borderline intellectual functioning. However, it is important for clinicians to understand that an IQ score may involve a measurement error of approximately five points and that “IQ measures are less valid in the lower end of the IQ range” (APA, 2013a, p. 33), and “problems in adaptation are more likely to improve with remedial efforts than is the cognitive IQ, which tends to remain a more stable attribute” (APA, 2000, p. 42). Consequently, the *DSM-5* removes the *DSM-IV-TR* requirement that IQ score solely determines the disorder severity index. Clinicians now determine severity index (i.e., mild, moderate, severe, profound) by “using both clinical evaluation and individualized, culturally appropriate, psychometrically sound measures” (APA, 2013a, p. 37) to assess the child’s ability to cope with common life demands and meet the standards of personal independence relative to age and culture in *conceptual* (knowledge and judgment), *social* (empathy and communication), and *practical* (learning and self-management) adaptive functioning domains. For accurate severity index determination, clinicians are encouraged to use “Table 1: Severity levels for intellectual disability (intellectual developmental disorder)” located in the *DSM-5* on pages 34 to 36.

SAMPLE *DSM-5* DIAGNOSIS

Removal of the multiaxial system in *DSM-5* helps clinicians detect and communicate porous psychiatric symptoms in a more clinically informative framework. For example, using the *DSM-IV-TR*, clinicians reporting a childhood Asperger clinical profile used this format:

Asperger’s Disorder (this style of classification format significantly limits clinical case formulation and hinders individualized treatment planning).

In contrast, clinicians using the *DSM-5* descriptive specifiers and “Table 2: Severity levels for autism spectrum disorder” (APA, 2013a, p. 52) now report a childhood Asperger clinical profile using this format:

Autism Spectrum Disorder—requiring substantial support for social communication and social interaction (level 2 moderate); requiring support for restricted repetitive behaviors, interests and activities (level 1 mild); without accompanying intellectual impairment; without accompanying language impairment; without catatonia.

Notice the diagnostic precision the *DSM-5* offers in comparison with the vague *DSM-IV-TR* classification. Conceptualizing autism as a spectrum disorder allows for dimensional specificity and facilitates developmental and life span–sensitive treatment interventions. For example, the moderate severity index *requiring substantial support* for social communication conveys the child’s “marked deficits in verbal and nonverbal social communication skills; social impairments apparent even with supports in place; limited initiation of social interactions; and reduced or abnormal responses to social overtures from others” (APA, 2013a, p. 52). These deficits become primary targeted behavior management areas. The mild severity index *requiring support* for restricted repetitive behaviors (RRBs) indicates that the child’s “inflexibility of behavior causes significant interference in one or more contexts. Difficulty switching between activities. Problems of organization and planning hamper independence” (APA, 2013a, p. 52). These deficits become secondary targeted behavior management areas. Clinicians are encouraged to read the *DSM-5*’s use of the manual chapter (pp. 19–24) to properly understand the new approach to clinical case formulation, elements of a diagnosis, and assessment and monitoring tools displayed in this sample diagnosis.

Summary

This chapter began with a discussion of the evolution of the *DSM* up to the current Fifth Edition, with a particular focus on identifying, and defining, the term *mental disorder*. From there, it moved to looking at diagnostic issues specific to childhood and adolescence and the changes that occurred in the new manual. The new diagnostic criteria and categories were thoroughly discussed, and case examples were provided to help illustrate the changes. Finally, the chapter concluded with a sample diagnosis that highlighted the differences between the diagnostic criteria in the *DSM-IV-TR* and the *DSM-5*.

References

- American Psychiatric Association. (1952). *Diagnostic and statistical manual of mental disorders*. Washington, DC: Author.
- American Psychiatric Association. (1968). *Diagnostic and statistical manual of mental disorders* (2nd ed.). Washington, DC: Author.
- American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed.). Washington, DC: Author.
- American Psychiatric Association. (1987). *Diagnostic and statistical manual of mental disorders* (3rd ed., rev.). Washington, DC: Author.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.
- American Psychiatric Association. (2013a). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.
- American Psychiatric Association (2013b). *DSM-5 and diagnoses for children*. Retrieved from <http://www.psychiatry.org/file%20library/practice/dsm/DSM-5/DSM-5-diagnoses-for-children.pdf>
- American Psychiatric Association (2013c). *Highlights of changes from DSM-IV-TR to DSM 5*. Retrieved from <http://www.dsm5.org/Documents/changes%20from%20DSM-IV-TR%20to%20DSM-5.pdf>
- American Psychiatric Association (2013d). *Lifespan developmental approaches*. Retrieved from <http://www.dsm5.org/MeetUs/Pages/LifeSpanDevelopmentalApproaches.aspx>
- Bingham, R., & Banner, N. (2014). The definition of mental disorder: Evolving but dysfunctional? *Journal of Medical Ethics*, 40(8), 537–542. Retrieved from <http://search.proquest.com/docview/1606006293?accountid=166133>
- Charles, S. T., & Carstensen, L. L. (2010). Social and emotional aging. *Annual Review of Psychology*, 61(1), 383–409.
- Environmental Protection Agency. (2013). *Neurodevelopmental disorders*. Retrieved from <http://www.epa.gov/ace/pdfs/Health-Neurodevelopmental.pdf>
- Eranti, S. V., MacCabe, J. H., Bundy, H., & Murray, R. M. (2013). Gender difference in age at onset of schizophrenia: A meta-analysis. *Psychological Medicine*, 43(1), 155–167. doi:10.1017/S003329171200089X
- Fine, J. G., & Sung, C. (2014). Neuroscience of child and adolescent health development. *Journal of Counseling Psychology*, 61(4), 521–527. doi:10.1037/cou0000033
- First, M. B., & Wakefield, J. C. (2013). Diagnostic criteria as dysfunction indicators: Bridging the chasm between the definition of mental disorder and diagnostic criteria for specific disorders. *The Canadian Journal of Psychiatry*, 58(12), 663–669. Retrieved from <http://search.proquest.com/docview/1492674819?accountid=166133>
- Grossman, C. I. (2004). Labels and language: Implications for prevention of the DSM definition of mental disorder. *The Journal of Primary Prevention*, 24(4), 513–522. 10.1023/B:JOPP.0000024804.56658.ea
- Hudson, C. G. (2012). Declines in mental illness over the adult years: An enduring finding or methodological artifact? *Aging & Mental Health*, 16(6), 735–752. doi:10.1080/13607863.2012.657157
- Insel, T. R. (2014). Mental disorders in childhood: Shifting the focus from behavioral symptoms to neurodevelopmental trajectories. *JAMA: Journal of the American Medical Association*, 311(17), 1727–1728. doi:10.1001/jama.2014.1193
- The Institute for Human Services for the Ohio Child Welfare Training Program. (2007). *Developmental milestones chart*. Retrieved from http://www.rsd.k12.pa.us/Downloads/Development_Chart_for_Booklet.pdf
- Kecmanovic, D. (2013). The DSM-5 definition of mental disorder. *Australian and New Zealand Journal of Psychiatry*, 47(4), 393–394. Retrieved from <http://search.proquest.com/docview/1413433590?accountid=166133>
- Kindsvatter, A., & Geroski, A. (2014). The impact of early life stress on the neurodevelopment of the stress response system. *Journal of Counseling & Development*, 92(4), 472–480.
- Lakhan, R., & Ekundayo, O. T. (2015). National sample survey organization survey report: An estimation of prevalence of mental illness and its association with age in India. *Journal of Neurosciences in Rural Practice*, 6(1), 51–54. doi:10.4103/0976-3147.143194
- Liu, J. J., Norman, R. M., Manchanda, R., & De Luca, V. (2013). Admixture analysis of age at onset in schizophrenia: Evidence of three subgroups in a

- first-episode sample. *General Hospital Psychiatry*, 35(6), 664–667. doi:10.1016/j.genhosppsych.2013.07.002
- Moran, M. (2014, October 22). *DSM-5 provides new take on neurodevelopmental disorders*. *Psychiatric News*. Retrieved from <http://psychnews.psychiatryonline.org/doi/full/10.1176%2Fappi.pn.2013.1b11>
- National Institute of Mental Health. (n.d.). *Any disorder among children*. Retrieved from <http://www.nimh.nih.gov/health/statistics/prevalence/any-disorder-among-children.shtml>
- National Institute of Mental Health. (2014). *Transformative neurodevelopmental research in mental illness: Report of the National Advisory Mental Health Council's Workgroup*. Retrieved from http://www.nimh.nih.gov/about/advisory-boards-and-groups/namhc/neurodevelopment_workgroup_report_33553.pdf
- Perry, B. D. (2008). Child maltreatment: A developmental perspective on the role of trauma and neglect in psychopathology. In T. Beauchaine & S. P. Hinshaw (Eds.), *Child and Adolescent Psychopathology* (pp. 93–129). Hoboken, NJ: John Wiley & Sons.
- Spitzer, R. L. (1999). Harmful dysfunction and the DSM definition of mental disorder. *Journal of Abnormal Psychology*, 108(3), 430–432. 10.1037/0021-843X.108.3.430
- Thome, J., Drossos, T., & Hunter, S. J. (2013). Neurodevelopmental disorders and associated emotional/behavioral sequelae. In L. A. Reddy, A. S. Weissman, & J. B. Hale (Eds.), *Neuropsychological assessment and intervention for youth: An evidence-based approach to emotional and behavioral disorders* (pp. 271–298). Washington, DC: American Psychological Association.
- Varley, C. K. (2013). *Overview of DSM-5 changes*. Retrieved from <http://www.omh.ny.gov/omhweb/resources/providers/DSM-5-overview.pdf>
- Wakefield, J. C. (1992). Disorder as harmful dysfunction: A conceptual critique of DSM-III-R's definition of mental disorder. *Psychological Review*, 99(2), 232–247. 10.1037/0033-295X.99.2.232
- Wills, C. D. (2014). DSM-5 and Neurodevelopmental and Other Disorders of Childhood and Adolescence. *Journal of the American Academy of Psychiatry Law*, 42(3), 165–172.
- World Health Organization. (2005). *Child and adolescent mental health policies and plans*. Retrieved from http://www.who.int/mental_health/policy/Childado_mh_module.pdf
- World Health Organization. (2014, October). *Mental disorders*. Retrieved from <http://www.who.int/media/centre/factsheets/fs396/en/>
- Zupanick, C. E. (2013). *The new DSM-5: Changes to childhood disorders*. Retrieved from <http://www.amhc.org/1418-DSM-5/article/51958-the-new-DSM-5-changes-to-childhood-disorders>