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DIAGNOSES IN CHILDREN AND ADOLESCENTS

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Introduction
Diagnoses serve a critical function in the field of children’s mental health care. The need to ensure
that clinicians and researchers use a common methodology to characterize mental illnesses grew
out of psychiatry’s foundation in medicine. In 1952, the goal of having a universal set of criteria for
describing the various ways mental illnesses are manifest led to the development of the first Diagnos-
tic and Statistical Manual (DSM) by the American Psychiatric Association (APA). (American Psychi-
atric Association, 1952) Initially, the DSM was intended as a research instrument designed by and for
researchers so that disorders could be categorized, rates of illnesses and their natural course delineated
(epidemiology), and treatment interventions compared for effectiveness. The DSM has since gone
through many iterations with the current version, DSM-5, published in 2013 (American Psychiatric
Association, 2013). Since its inception, the manner in which the DSM is used has broadly expanded.

The DSM uses descriptions of behavior and problematic thinking or feeling, along with measures
of functional impairment, to determine the difference between normal development and pathology.
For children, failure to obtain developmental milestones could be considered pathology. For example,
a 5-year-old describing his or her relationship with an imaginary friend is completely developmen-
tally appropriate; however, if he or she continued to believe in imaginary friends into adolescence,
this would raise a concern of psychosis. Diagnoses can serve a useful function, but have their limits,
particularly for children. While diagnoses can guide our thinking about a child’s emotional or behav-
ioral challenges, they can also lead to stigma and discrimination, and can result in a focus on deficits
and “what’s wrong” with a child instead of on the child’s strengths and capacity for resilience and
recovery.

In the 1980s, with the onset of managed care and the increasing use of insurance as a primary
source of payment for psychiatric services, the DSM was increasingly used to determine which diag-
noses merited payment and whether a person was eligible for services and supports provided through
state and county mental health care systems. As a result, diagnoses increasingly became important to
families of children struggling with emotional and behavioral conditions. DSM diagnoses came to
determine whether a child would be provided treatment and often which treatments a child could
receive and by what public system.

For example, some state departments of mental health (DMH) have determined that Autism
Spectrum Disorders (ASDs) are developmental disorders and so are the responsibilities of schools.
As a result, youth with ASDs are often ineligible to receive services and supports from the DMH.
However, schools often do not pay for in-home services, leaving the family of a child with an ASD to struggle to find ways of obtaining home-based behavioral services, which are recommended in clinical guidelines as effective interventions for youth with ASDs. Families often find themselves in the position of having to navigate between public schools, state or county mental health care agencies, and their insurance provider in order to obtain the necessary mental health treatments for their child.

**Overview of DSM-5 and Review of Significant Changes from DSM-IV Relevant to Children and Adolescents**

The DSM-5 continues the categorical approach of prior DSMs. Mental disorders are described by their symptoms and are clustered based on similarities in overarching categories, for example, mood or psychotic disorders. Prior DSMs used a multi-axial methodology allowing for descriptions of personality disorders on Axis II; medical conditions on Axis III; psychosocial stressors on Axis IV; and a global assessment of functioning on Axis V. The DSM-5 has done away with this multi-axial approach. It is important to still capture these issues in an initial mental health assessment and biopsychosocial formulation (see section IV).

The DSM-5 Autism Spectrum Disorder (ASD) diagnoses combine four separate DSM-IV disorders (Autistic Disorder; PDD, NOS; Asperger’s Syndrome; and Childhood Disintegrative Disorder) into one overarching condition defined by deficits in social communication and social interaction and restricted repetitive behaviors, interests and activities (RRBs). The diagnosis of Mental Retardation was changed to Intellectual Disability with severity determined by adaptive functioning rather than intelligence quotient (IQ) score.

In the domain of Communication Disorders, Language Disorder combines DSM-IV expressive and mixed receptive–expressive language disorders, and Speech Sound Disorder replaces Phonological Disorder. Social (pragmatic) Communication Disorder is a new condition in DSM-5 used for persistent difficulties in the social uses of verbal and nonverbal communication. This cannot be diagnosed in the presence of RRBs to separate it from autism. Some patients previously diagnosed with Pervasive Developmental Disorder, Not Otherwise Specified may qualify for this diagnosis instead.

The diagnosis of attention deficit/hyperactivity disorder (ADHD) had a change to its age of onset of symptoms from age 7 to age 12, although the diagnosis could be made after age 12 provided symptoms were first manifest prior to age 12. ADHD can now be comorbid with an ASD diagnosis.

In the area of Mood Disorders, DSM-5 added a new disorder unique to childhood, Disruptive Mood Dysregulation Disorder (DMDD). This diagnosis was added to address concerns about the overdiagnosis and overtreatment of Bipolar Disorder in children. The age of onset must be prior to age 18 and the condition is defined by persistent irritability and frequent episodes of extreme behavioral dyscontrol. In practice, most youths with DMDD will have symptoms of ADHD and, after treatment of the ADHD, symptoms of anxiety or depression will remain. DMDD cannot be comorbid with Oppositional Defiant Disorder, despite field trials showing significant overlap between the two conditions.

Oppositional Defiant Disorder (ODD) now has three subtypes highlighting the presence of both emotional and behavioral symptoms. The three subtypes are: angry/irritable mood; argumentative/defiant behavior; and vindictiveness. ODD can now be diagnosed comorbidly with Conduct Disorder (CD).

Previously Reactive Attachment Disorder had two subtypes that in DSM-5 are defined as distinct disorders, both requiring a history of social neglect. Reactive Attachment Disorder is an internalizing disorder resulting in dampened positive affect and a lack of, or incompletely formed, attachment to caregiving adults. Disinhibited Social Engagement Disorder resembles ADHD and can occur in the presence of secure attachment.
Gender Dysphoric Disorder replaces Gender Identity Disorder, emphasizing the notion of gender incongruence rather than cross-gender identification. DSM-5 recognizes gender is not binary and acknowledges the wide variation in gender-incongruent conditions.

**Shortcomings in the DSM Diagnostic Approach for Children and Adolescents**

The DSM largely lacks a developmental perspective. Children are not “little adults,” yet for all major psychiatric diagnoses, including anxiety, mood, psychotic, and trauma disorders, a child must meet the same diagnostic criteria as adults. Would a traumatized 5-year-old present with symptoms in a similar manner to a 50-year-old? The lack of developmental criteria in DSM defies all that is known about developmental competencies, including: language, cognition, meaning-making, and object permanence. For children under 3, a specific diagnostic nomenclature was developed in response to the DSM’s lack of a developmental focus (Zero to Three, 2005). For youths 3 to 18, there is no such diagnostic cross-reference or translation. Without this developmental perspective, individual clinicians are left to define what conditions look like in children, much like adult psychiatry found itself in the 1950s, prompting the development of the first DSM.

An example of the pitfalls of this lack of developmental criteria in the DSM is the diagnosis of juvenile-onset or Pediatric Bipolar Disorder (PBD). PBD is understood as a condition first manifest prior to adolescence and has both narrow definitions and broad phenotypes. The narrow definitions must adhere to the adult DSM criteria for Bipolar Disorder. There is no consensus about the diagnostic criteria for the broad phenotype, leaving individual clinicians and research groups to define the condition based on concepts as nonspecific as irritability or grandiosity. What does an “irritable” or a “grandiose” child look like (Geller, Zimerman, Williams, DelBello, Frazier, & Berlinger, 2002; Wozniak, 2005)? In the case of juvenile-onset Bipolar Disorder, there has been a 4,000% increase in the diagnosis of this condition in youth (Moreno, Laie, Blanco, Jiang, Schmidt, & Olfson, 2007). However, longitudinal studies indicate 75% of PBD diagnoses are made in error when we follow this cohort of children into adulthood (Findling, Youngstrom, Fristad, Birmaher, Kowatch, & Arnold, 2010). This is not a benign mistake. Once a youth is diagnosed with Bipolar Disorder, the primary intervention in practice has been psychotropic medications (although recent literature has shown efficacy for evidence-based practices such as Dialectical Behavioral Therapy) (Goldstein, Axelson, Birmaher, & Brent, 2007). Typically, these are second-generation antipsychotic medications that carry significant risks of obesity, diabetes, and metabolic syndrome (De Hert, Dobbelaar, Sheridan, Cohen, & Correll, 2011).

Diagnoses in childhood are based on aberrant behaviors or functioning that would be atypical beyond certain ages, meaning behaviors need to be viewed through a developmental lens. This is a KEY difference from diagnosis in adults where aberrant behaviors or ways of thinking and feeling are considered pathological if they reach a threshold in terms of the adult’s functioning. This distinction means clinicians working with children must know when developmental skills are expected to emerge. Many resources are available to determine where a child falls based on expected development skill acquisition (e.g., Vineland Adaptive Behavior Scales cited in Sparrow, Cicchetti, & Balla, 2005 and the Ages and Stages Questionnaires cited in Squires et al., 2009; 2015). Examples of dysfunction that would be considered pathological beyond certain ages (typically disorders of development) include:

- Lack of or delays in language, gross, or fine motor acquisition by age 2;
- Lack of reciprocal social interactions by age 3;
Lack of attainment of discrete cognitive abilities by certain defined age thresholds can have importance beyond defining intellectual disabilities. For example, Piaget's concept of object permanence determines when fears might develop regarding whether a child's parents will return after an absence. Without this developmental ability, a child may be susceptible to separation anxiety or attachment difficulties.

Another distinction in making diagnoses in childhood is the need to query multiple informants. Unlike with adults, a context in which a clinician would not ordinarily ask to speak to the patient's employer to get an objective assessment of the patient's functioning, in assessing children, it is critical to talk with the school, the pediatrician, the parents, and any other significant adults in the child's life. Parents are known to be better at identifying and reporting certain aspects of their child's behaviors as compared to teachers and vice versa (Achenbach, McConaughy, & Howell, 1987).

**Biopsychosocial Formulation**

Engel's biopsychosocial approach is particularly relevant for clinical work with children (Engel, 1978). Engel advocated thinking holistically about the contributors to an individual's risk and protective factors by defining their biological, psychological, and social components. Biological contributors are made up of an individual's genetics, including family history of mental illness; intra-uterine toxic exposures (e.g., alcohol and other drug exposure, medications known to be teratogenic, and maternal stress or trauma); and physical illnesses contributing to disease burden. Psychological strengths and risks include a child's temperament, defense mechanisms, cognitive abilities and disabilities, and learning disabilities. Social determinants of illness or strengths include adverse childhood experiences (ACEs) and their role in disease burden and early mortality, as well as the role of positive parenting in protecting from genetic risks of mental illness (Felitti et al., 1998).

Diagnoses are two-dimensional. They do not tell a story that leads to improved understanding of the child and his or her behavior. Done well, a biopsychosocial formulation makes a child's behavior in the context of his or her inherited strengths and vulnerabilities, social milieu, and psychological strengths and needs seem logical, the clear by-product of the interaction of these core contributing factors. This approach also leads naturally to a treatment plan focused on minimizing and ameliorating the child's risk factors while supporting his or her and the family's strengths and protective factors. Diagnoses cannot do this.

Diagnoses should be considered hypotheses to be tested as new information is obtained and as the clinician observes the child's response to therapeutic interventions. It is important to take a longitudinal approach to understanding the child's clinical presentation. In practice, clinicians are often forced to provide a diagnosis after just one meeting with a child and his or her parents in order to bill an insurance company for the service. It is important to assess responses to interventions in order to see whether the outcomes expected based on the diagnostic formulation are achieved, and, if not, to be willing to consider whether the problem has been assessed accurately; the wrong intervention applied; or more objective data is needed (which can be a role for testing, e.g., psychological and/or neuropsychological testing).

**The Future of Diagnostic Classification Schemas**

In an effort to ensure uniformity in the reporting of disease and mortality rates by its member countries, the World Health Organization (WHO) publishes the International Classification of Diseases (ICD). The current version, ICD–10, was published in 1992, with a revised version under way and expected to be published in 2017 (World Health Organization, 1992). There has been a significant
delay in the implementation of the ICD-10 in the United States, which is now scheduled for implementation in October 2015. The developers of DSM-5 had access to the ICD-10 while the DSM-5 was in development, meaning there is little substantive difference between the descriptions of specific diagnoses. The DSM-5 provides a crosswalk to compare the diagnostic codes between the two classification schemas.

The National Institute of Mental Health has launched the Research Domain Criteria Initiative (RDoC). RDoC is meant to change the framework for how clinicians diagnose and care for patients by building a framework beyond symptoms based on biologic validity such as genomic variants and brain circuit-level differences. “RDoC asks researchers to shift from designing research projects narrowly built around current diagnostic categories to dimensions or systems, such as social processes or negative valence (responding to aversive objects or situations), which are supported by deep cognitive and neural science and can be the basis for objective measures of psychopathology” (Insel & Cuthbert, 2015). Dr. Thomas Insel, the director of the National Institute of Mental Health, was highly critical prior to the DSM-5’s release, stating in his April 29, 2013, blog:

> While DSM has been described as a “Bible” for the field, it is, at best, a dictionary, creating a set of labels and defining each. The strength of each of the editions of DSM has been “reliability”—each edition has ensured that clinicians use the same terms in the same ways. The weakness is its lack of validity. Unlike our definitions of ischemic heart disease, lymphoma, or AIDS, the DSM diagnoses are based on a consensus about clusters of clinical symptoms, not any objective laboratory measure. In the rest of medicine, this would be equivalent to creating diagnostic systems based on the nature of chest pain or the quality of fever. Indeed, symptom-based diagnosis, once common in other areas of medicine, has been largely replaced in the past half century as we have understood that symptoms alone rarely indicate the best choice of treatment.

(Insel, 2013)

RDoC is still an aspiration since the science is not available to provide the basis for mental illnesses, but the goal is to move beyond defining mental illness descriptively and replace it with the biological substrates that cause the illness. As a result, Dr. Insel tempered his critique of DSM-5 in a joint statement with Dr. Lieberman, then president-elect of the APA. “DSM 5 represents the best information currently available for clinical diagnosis of mental disorders. Patients, families, and insurers can be confident that effective treatments are available and that the DSM is the key resource for delivering the best available care” (Insel & Lieberman, 2013).

The RDoC approach will depend on continued progress in multiple related scientific fields of study, including neuroimaging, genetics, and cognitive sciences. The much-lauded hope of RDoC is that by defining mental illnesses based on their etiology, new and improved treatments will follow.

**Conclusion**

The field of children’s mental health care continues to evolve and transition as emerging brain science informs new ways of understanding children’s emotional and behavioral functioning. While we are still left with the limits of the current diagnostic nomenclature, the future promises new ways of understanding why some children may struggle to make healthy transitions into adulthood and others, with similar biological and social risk factors, thrive. Until brain science and RDoC change the current diagnostic paradigm, clinicians will be required to use the DSM-5, and yet should be cautious about moving too quickly to assign a diagnostic label to a child. As you read the following chapters, it is recommended that you do so with a critical eye about how diagnoses are made. It is important to adopt a longitudinal approach to determining a child’s diagnosis, and to consider
a diagnosis a provisional label that can be modified as more information is obtained about the child and their family. Clinicians should be open to reconsidering a diagnosis in light of the child’s response to interventions and prioritize using a biopsychosocial approach to understanding and reporting on the child and family’s needs and strengths.

References


