

# INTRODUCTION TO NEURODEVELOPMENTAL DISORDERS

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### Developmental Disabilities

### Co-occurrence of Mental Health Disorders and Developmental Disabilities

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In 2013, the American Psychiatric Association (APA) released the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), replacing the Diagnostic and Statistical Manual Fourth Edition Text Revision (DSM-IV-TR). In the DSM-5, the section, “Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence” was replaced with a new section, “Neurodevelopmental Disorders.” This new DSM-5 classification includes those neurodevelopmental disabilities that manifest early in development, often before the child enters grade school, and are characterized by developmental deficits that produce impairments of personal, social, academic, or occupational functioning (APA, 2013). The neurodevelopmental disorders discussed in the *Collection* include autism spectrum disorder (ASD), intellectual disability (ID), attention-deficit/hyperactivity disorder (ADHD), and motor disorders.

## Developmental Disabilities

Developmental disabilities, as defined by the Centers for Disease Control (CDC), are a diverse group of severe chronic conditions that cause mental and/or physical impairments. These conditions begin during the developmental period, may impact day-to-day functioning, and usually last throughout a person’s lifetime. Individuals with developmental disabilities have substantial limitations in three or more of the following areas:

- Self-care
- Comprehension and language
- Skills (receptive and expressive language)
- Learning
- Mobility
- Self-direction
- Capacity for independent living
- Economic self-sufficiency
- Ability to function independently without coordinated services (42 U.S.C. § 15002)

Developmental disability is an umbrella term that includes intellectual disorders (such as intellectual disability) and physical disorders (such as cerebral palsy and epilepsy) that occur during early childhood (American Association on Intellectual and Developmental Disabilities (AAIDD), 2013). Some developmental disabilities include both a physical and intellectual component, such as Down syndrome or fetal alcohol syndrome.

Recent estimates in the United States show that about one in six, or about 15 percent, of children aged three through 17 years have one or more developmental disabilities (Boyle et al., 2011; CDC, 2017). The CDC and the U.S. Administration on Developmental Disabilities assert that 1.8 percent of the total general population have a developmental disability. Using this rate, it is estimated that there are 147,346

adults and children in Virginia with a developmental disability (Virginia Department of Behavioral Health and Developmental Services (VDBHDS), 2013). In December 2010, the Virginia Department of Education reported 8,244 children ages three to five were diagnosed with a developmental disability (VDBHDS).

Developmental disabilities require a combination and sequence of care, treatment, or other services of lifelong or extended duration. Service providers should keep in mind the diverse needs of individuals with developmental disorders and formulate goals to help them live more active, productive, and independent lives.

### **Co-occurrence of Mental Health Disorders and Developmental Disabilities**

Youth with developmental disabilities may also have a diagnosable mental health disorder, also known as a dual diagnosis. While most professionals understand dual diagnosis to describe those who suffer from both mental health disorders and substance abuse, the term is also used for those with the double challenge of a developmental disability and a mental health disorder (Hartwell-Walker, 2012). Clinicians who do not recognize the possibility of dual diagnosis may leave mental health issues untreated and exacerbate symptoms. A dual diagnosis may cause significant clinical impairment, placing an additional burden on youth with developmental disorders and their families.

The full range of psychopathology that exists in the general population can also co-exist in youth who are diagnosed with developmental disabilities (Davis, Jivanjee, & Koroloff, 2010). Youth of all ages and levels of functioning can receive a dual diagnosis. Estimates of the frequency of dual diagnosis vary widely; however, many professionals estimate 30 to 35 percent of all individuals with a developmental disability also have a mental health disorder (Fletcher, as cited by Davis, Jivanjee, & Koroloff).

There are several notable limitations to studies that assess the incidence or prevalence of co-occurring mental health and developmental disabilities:

- The technology for assessing mental health disorders in youth with developmental disabilities is not yet well developed (Davis, Jivanjee, & Koroloff, 2010).
- Assessment may be affected by “diagnostic overshadowing,” which can occur when symptoms of a mental health disorder are “overshadowed” by the presence of a diagnosed developmental disability and the behavior is believed to be a result of the developmental disability (Reiss, Levitan, & Szyszko, as cited by Davis, Jivanjee, & Koroloff).
- Variability in the way that developmental disabilities and mental health disorders are defined makes it difficult to obtain reliable estimates of dual disorders. Clinicians or service providers who assign a primary diagnosis of the developmental disability could possibly ignore the mental health disorder (NADD, n.d.).

VDBHDS has noted an increasing demand by individuals with both co-occurring mental health disorders and developmental disabilities for services for specialized interventions and care (VDBHDS, 2012). Moreover, youth with co-occurring developmental disabilities and mental health disorders may not be identified, and when they are, their needs are frequently overlooked. The co-existence of developmental disabilities and mental health disorders can have serious effects on the youth’s daily functioning by interfering with educational and vocational activities and by disrupting family and peer relationships. The presence of a mental health disorder can greatly reduce the quality of life of a youth with a developmental disability, making it important that accurate diagnosis and appropriate treatment be obtained.

Service providers may use structured or semi-structured tools developed for individuals with developmental disabilities to improve the accuracy of the mental health diagnosis. A full psychiatric/behavioral assessment for youth with developmental disability is a critical step to help accurately diagnose a co-occurring mental health disorder.

The *Collection* provides an updated listing of evidence-based practices for children and adolescents with neurodevelopmental disorders and mental health disorders. The *Collection* is for parents, caregivers, educators, service providers and others seeking current research. It provides information that represents the medical model, the traditional approach to the diagnosis and treatment of medical conditions. This model focuses on the physical and biological aspects of specific diseases and conditions.

It is important to note that the medical model does not focus on the holistic needs of the individual; instead, it is the role of the service provider to use a problem-solving approach to address these needs. For example, the medical model does not incorporate changes in the language or methods used for communicating and interacting with individuals with developmental disabilities. A service provider, on the other hand, can use “person-centered” planning and approaches that addresses these needs while focusing on other emotional and support needs. Person-centered practices promote individualized treatment and service plans and emphasize individualized outcomes and the participation of the individual in their treatment planning. Furthermore, these plans focus on the services needed for the youth to address his or her mental health disorder and to lead successful integrated lives in their community (National Association of State Mental Health Program Directors, 2004).

## **Resources and Organizations**

### **Administration on Intellectual and Developmental Disabilities (AIDD)**

501 3rd Street, NW Suite 200  
Washington, DC 20001  
202-387-1968  
<http://www.aamr.org/>

### **Centers for Disease Control and Prevention**

National Center on Birth Defects and Developmental Disabilities  
Division of Birth Defects and Developmental Disabilities  
1600 Clifton Road MS E-87  
Atlanta, GA 30333  
800-CDC-INFO (800-232-4636)  
888-232-6348 (TTY)  
<https://www.cdc.gov/ncbddd/index.html>

### **Center for Excellence in Developmental Disabilities (CEDD)**

2825 50th St. – Sacramento, CA 95817  
916-703-0280  
<http://ucdmc.ucdavis.edu/mindinstitute/centers/cedd.html>

### **Center for Parent Information and Resources**

c/o Statewide Parent Advocacy Network  
35 Halsey St., 4<sup>th</sup> Fl. – Newark, NJ 07102  
<http://www.parentcenterhub.org/>

### **National Association of the Dually Diagnosed (NADD)**

132 Fair St. – Kingston, NY 12401  
845-331-4336; 800-331-5362  
<http://thenadd.org/>

## **Virginia Resources and Organizations**

### **disAbility Law Center of Virginia (dLCV)**

1512 Willow Lawn Drive, Suite 100  
Richmond, VA 23230  
800-552-3962  
<http://dlev.org/>

### **Partnership for People with Disabilities**

Virginia University Center of Excellence  
Virginia Commonwealth University  
P.O. Box 843020  
Richmond, VA 23284-3020  
804-828-3876; 800-828-1120  
<https://partnership.vcu.edu/>

### **Virginia Board for People with Disabilities**

1100 Bank St., 7<sup>th</sup> Fl., Washington Office  
Bldg.  
Richmond, VA 23219  
804-786-0016; 800-846-4464  
<https://www.vaboard.org/>

### **Virginia Department for Aging and Rehabilitative Services**

8004 Franklin Farms Drive  
Henrico, VA 23229-5019  
804-662-7000; Toll Free 800-552-5019  
Toll Free TTY: 800-464-9950  
<https://vadars.org/>

### **Virginia Department of Behavioral Health and Developmental Services**

Office of Developmental Services  
P.O. Box 1797 – Richmond, VA 23219  
804-786-1746 or 800-371-8977; 804-786-1587 (V/TTY)  
<http://www.dbhds.virginia.gov/>

### **Virginia Department of Education**

Office of Special Education and Student Services  
P.O. Box 2120 – Richmond, VA 23218  
804-225-2402  
[http://www.doe.virginia.gov/special\\_ed/index.shtml](http://www.doe.virginia.gov/special_ed/index.shtml)

### **Virginia Department of Health**

Child & Adolescent Health, Division of Child & Adolescent Health  
109 Governor Street, 8<sup>th</sup> Floor  
Richmond, VA 23219  
804-864-7685  
<http://www.vdh.virginia.gov>

### **Virginia Department of Medical Assistance Service (DMAS)**

600 East Broad Street  
Richmond, VA 23219  
804-786-7933  
<http://www.vdh.virginia.gov/>

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**DISCLOSURE STATEMENT**

The information contained herein is strictly for informational and educational purposes only and is not designed to replace the advice and counsel of a physician, mental health provider, or other medical professional. If you require such advice or counsel, you should seek the services of a licensed mental health provider, physician, or other medical professional. The Commission on Youth is not rendering professional advice and makes no representations regarding the suitability of the information contained herein for any purpose.