

Chapter Two

Neurodevelopmental Disorders

Note that the correct answer for each item is indicated in a bold font.

Multiple Choice Questions:

Please indicate the most likely response to the following multiple-choice questions:

Little Sammie, a nickname since childhood, is a 23 year-old single man who lives at home with his parents, Joe and Isabelle Carhart. He is an only child. Sammie attended special education classes and since graduation has been working in a sheltered workshop. Joe comments, “My son is a hard worker and gets along really well on the job.” However, Joe and his wife are becoming increasingly concerned about how Sammie will manage if something happens to them. “My son is such a good boy but he’s so gullible. It’s easy to take advantage of him,” said Isabelle. She adds, “He simply cannot manage on his own.” Which of the following diagnoses best apply to Sammie?

- a) Specific learning disorder
- b) Intellectual disability (intellectual developmental disorder)**
- c) Language disorder
- d) Attention-deficit hyperactivity disorder

A child with autism spectrum disorder may show any of the following behaviors except:

- e) Struggles with social relationships
- f) Forms a meaningful relationship with his or her parents**
- g) Has a hard time learning how to communicate
- h) May not want to talk at all

The neurodevelopmental disorders are a group of conditions characterized by all of the following except:

- a) Typically manifest early in development
- b) Characterized by developmental deficits
- c) Onset in the post developmental period**
- d) Produce impairments in personal, social, academic or occupational functioning

Mary Lynn Dodson knew as soon as her son, Lou, was born that he was somehow “different.” She remembered that Lou never liked to be held. “If I tried to cuddle him, he would cry something awful and arch his back. It was so hard to keep him close to me,” she added. Lou

seemed to be in his own world and rarely even looked at his mother. He often rocked himself back and forth in his crib. Aside from grunting noises, Lou did not talk. As Lou grew older, Ms. Dodson observed that he would get upset if there was even the smallest change in his routine. His favorite toy was his train set. His mother reported that Lou was fascinated with the wheels and would spin them over and over. Lou's diagnosis is:

- a) Echopraxia disorder
- b) Asperger's disorder
- c) Echolalia disorder
- d) Autism spectrum disorder**

A child who shows repeated rhythmic, purposeless movements such as nail biting, head banging or body rocking would be diagnosed with:

- a) Autism spectrum disorder
- b) Stereotypic movement disorder**
- c) Attention-deficit/hyperactivity disorder, predominantly inattentive presentation
- d) Attention-deficit/hyperactivity disorder, predominantly hyperactive/impulsive presentation

When it is clear that one of the neurological disorders ought to be diagnosed, but the practitioner does not have enough information about the child's difficulties, this diagnosis is assigned with the understanding that as more information becomes available, a more specific diagnosis can be made. The diagnosis considered is:

- a) Pervasive neurodevelopmental disorder NOS
- b) Provisional neurodevelopmental disorder
- c) Unspecified neurodevelopmental disorder**
- d) Developmental disorder NOS

It wasn't until Jeremy went to school that his problems became evident to his parents. They just thought Jeremy needed a lot of extra love. According to his mother, "We always thought he would grow out of his odd little habits but it doesn't look like that's happening." Jeremy talked early but walked late, and he always seemed clumsy. Starting as early as the day he began pre kindergarten, Jeremy had no friends. Very early on, Jeremy was interested in computers. His teacher found he would go into great length describing different computer applications and yet Jeremy was unaware of how others would get bored by his "conversations." Jeremy's diagnosis would be:

- a) Autism spectrum disorder**
- b) Childhood disintegrative disorder
- c) Rett's disorder
- d) Pervasive neurodevelopmental disorder NOS

Mrs. Matthews contacted the Children's Center for her daughter, Diane, who is now 5 years old. As soon as Diane was born, her mother thought her daughter was "different." Mrs. Matthews

reported that the pediatrician found Diane to be in good health and predicted she would eventually outgrow her odd behaviors. Unfortunately, that does not seem to be the case. Diane does not make eye contact when she speaks and grunts if anyone tries to get too close to her. Diane has certain routines. For example, she has to line up all her dolls in a certain way before leaving the house. If a routine is interrupted, Diane becomes extremely upset and aggressive; that is, kicking and punching anyone who tries to comfort her. Diane's diagnosis is:

- a) Developmental coordination disorder
- b) Autism spectrum disorder**
- c) Adjustment disorder
- d) Rumination Disorder

Christina is now 6 years old. Her mother reports that Christina's developmental milestones were unremarkable but adds, "She achieved them in her own time and in her own way." Christina was talking by the time she was 2 and using complex sentences by the time she was 4 years old. Her school work is average but she often seems distracted because she is preoccupied with learning the multiplication tables. Her classmates see her as "different" and leave her alone. Christina is content to be by herself and practices intricate multiplications. Her diagnosis is:

- a) Pervasive developmental disorder NOS
- b) Autism spectrum disorder**
- c) Conduct disorder
- d) Attention-deficit hyperactivity disorder

Matt Bradley is now 7 years old. He is in second grade and it has become increasingly apparent to his teachers that he struggles to reason, has difficulties solving problems, and learning from his experiences. Further, Matt has been slow to develop his reading skills, his writing is illegible, and he is poor in math. On the playground, Matt does not play in an age-appropriate manner with his peers. His parents report that their son has always made slow progress throughout his development although they do see some improvements. However, they concede that Matt requires assistance with everyday skills – dressing, feeding, bathing, doing homework – on a daily basis. What would be the appropriate severity rating for Matt's current presentation?

- a) Mild
- b) Moderate**
- c) Severe
- d) Cannot be determined without an IQ score

One of the most well-recognized childhood developmental disorders characterized by inattention, hyperactivity and impulsiveness is

- a) Attention-deficit hyperactivity disorder**
- b) Disinhibited social engagement disorder
- c) Oppositional defiant disorder
- d) Reactive attachment disorder

Which of the following is not a criterion for the diagnosis of attention-deficit/hyperactivity disorder (ADHD) in the DSM-5?

- a) Evidence that symptoms interfere with or reduce the quality of social, academic or occupational functioning
- b) Symptoms of inattentive or hyperactivity/impulsivity can be seen before age 12
- c) Symptoms persist for at least 12 months**
- d) Inattentive or hyperactive-impulsive symptoms can be seen in 2 or more settings; such as at home, school or work, with friends or relatives, in other activities

A mother on your caseload describes her 7 year-old son as pervasively and chronically restless, impulsive, and inattentive. She notes, “He just can’t seem to pay attention, makes careless mistakes, doesn’t seem to listen when I talk to him, constantly loses things, is easily distracted, and is just so disorganized.” Further, she adds that her son often talks excessively, blurts things out, cannot wait his turn, constantly interrupts, fidgets, and simply cannot play quietly. Which diagnosis best fits this clinical picture?

- a) Bipolar disorder
- b) Attention-deficit/hyperactivity disorder**
- c) Oppositional defiant disorder
- d) Disruptive mood dysregulation disorder

Mrs. Price told the social worker that her daughter, Gloria, is a tall, graceful child adding, “she is gorgeous, and a great dancer. She is just the sweetest kid you could ever meet.” Gloria is going into the first grade and reading on the 3rd grade level. She sniffs and mumbles and gurgles just about every day and this had been going on for the past 2 years. Mrs. Price states that this does not seem to interfere with her daughter’s life much at all. Gloria’s diagnosis is:

- a) Transient tic disorder
- b) Persistent (chronic) motor or vocal tic disorder
- c) Tourette’s disorder**
- d) Tic disorder NOS

The mother of a 7 and ½ year-old boy describes a 6-month history of excessive eye blinking and intermittent chirping. This mother now reports that she has recently noticed her son has developed grunting sounds that started when he began school this term. What is the most likely diagnosis to consider?

- a) Tourette’s disorder
- b) Provisional tic disorder**
- c) Transient tic disorder, recurrent
- d) Persistent (chronic) vocal tic disorder

True/False:

The neurodevelopmental cluster of disorders is largely characterized by strong genetic and environmental risks, a consistent course that reflects a deviation in normal development, early age of onset, a continuing course that can potentially extend into adulthood, an overlap in symptoms or within cluster co-morbidity, the salience of cognitive symptoms, and increased prevalence in males. **True**

Attention-deficit/hyperactivity disorder is considered a chronic disorder where 30 to 50 % of those diagnosed in childhood will continue to have symptoms into adulthood. **True**

There are a numerous causes contributing to the development of the neurodevelopmental disorders ranging from childhood deprivation, genetic and metabolic diseases, immune disorders, infectious diseases, nutrition, physical trauma, and toxic and environmental factors. **True**

Inborn characteristics, such as genetic makeup, do not play a role in the neurodevelopmental disorders in children. **False**

In most cases, the child with a neurodevelopmental disorder can be considered to be an involuntary client since it is usually somebody else who identifies the problem. **True**

Children with the neurodevelopmental disorders are typically seen very early, often before the child enters grade school. **True**

There are 4 formal subtypes of specific learning disorder. **False**

Behaviors resulting in self-inflicted bodily injury that requires medical treatment is not a criterion for the DSM-5 diagnosis of stereotypic movement disorder. **True**

The failure to meet criteria for the communication disorders is a DSM-5 criterion for unspecified communication disorder. **True**

Symptom onset for speech sound disorder is in the child's early developmental period. **True**

Cultural background should always be taken into account in order to fully understand a child's symptoms of mental illness. **True**

Autism spectrum disorders and pervasive developmental disorders are two separate classifications of disorders. **False**

Fill in the Missing Answer:

The term used for when a person has subnormal intellectual development and is characterized by any of various cognitive insufficiencies including impaired learning, social, and vocational ability is _____. **Intellectual disability**

Considered a disorder of neural development, _____ disorder is characterized by impaired social interaction and communication, and by restricted and repetitive behavior that begins before 3 years of age. **Autism spectrum**

The essential feature of _____ is a disturbance in the normal fluency and time patterning of speech that is inappropriate for the individual's age. **Stuttering**

The core diagnostic features of _____ disorder are difficulties in the acquisition and use of linguistic abilities due to deficits in the comprehension (or production) of vocabulary, sentence structure, and discourse. **Language**

Matching:

Match each term with the appropriate definition:

Term:	Definition:
a) Chronic motor or vocal tic	<u> e </u> The essential feature is repetitive, seemingly driven, and apparently purposeless activity
b) Tic disorders	<u> d </u> A key feature is persistent difficulties learning foundation academic skills
c) Developmental coordination disorder	<u> a </u> This diagnosis involves quick uncontrollable movements or verbal outbursts (but not both)
d) Specific learning disorder	<u> c </u> Diagnosis is made if the individual's difficulties with motor skills are not better explained by visual impairment or can be attributed to a neurological condition
e) Stereotypic movement disorder	<u> b </u> The diagnosis is based on the presence of sudden, rapid, recurrent, non-rhythmic movements and/or verbalizations

Short Essay:

1. Describe and give an example of the influence of the child's developmental stages when formulating a diagnosis of neurodevelopmental disorders.

Suggested response:

- **Some emotions and behaviors are expected at certain developmental levels and do not necessarily represent symptoms of pathology;**
 - **For example, a 2 year old child with what is commonly called the “terrible twos” could be expected to have temper tantrums but this behavior would be unusual but if it persisted in an older child; for example, that kind of behavior might be symptomatic behavior of a disorder such as oppositional defiant disorder.**
2. List and give an example of the major characteristics of pervasive developmental disorders (PDD).

Suggested response:

- **Communication – for example, the child's speech pattern may consist of repeating phrases spoken to them, or using phrases in unusual ways, or reversing pronouns (saying something like, “You want toy.”);**
 - **Social interactions – for example, the child shows impaired ability to perceive events around them and to accurately interpret communication from others (such as the child who avoids eye contact);**
 - **Restricted behaviors – for example, the child may have unusual interests and their play may appear to be less imaginative and repetitive (such as the child who is less interested in playing with a doll and more interested in taking its shoes on and off over and over);**
3. There are three levels of severity for autism spectrum disorder organized around social communication and restricted, repetitive behaviors. List the levels of severity and provide an example of the behaviors associated with each.

Suggested response:

- **Requiring very substantial support:**
 - a) **Social communication – severe deficits can cause impairments in functioning; very limited social interactions and minimal response to others. For example: this is the child with few words of intelligible speech who rarely initiates interaction.**
 - b) **Restricted, repetitive behaviors – inflexible behavior; extreme difficulty coping with change or restricted/repetitive behaviors that interfere with functioning. For example” this is the person who shows great distress/or difficulty changing the focus of his (or her) actions.**
- **Requiring substantial support:**
 - a) **Social communication – deficits in verbal and nonverbal social communication skills; social impairments that are apparent even with supports in place; limited initiation of social interactions or reduced or**

abnormal responses to the overtures from others. For example: The individual's interaction is limited to very narrow special interests, and who shows odd nonverbal communication.

- b) Restricted, repetitive behaviors - inflexible behavior; difficulty coping with change or other restricted/repetitive behaviors that appear often enough to be obvious to others and interferes with functioning. For example, this is the individual who becomes distressed (or has difficulty with) changing focus or his (or her) actions.**
- Requiring support:**
 - a) Social communication – without supports, deficits in social communication become obvious causing noticeable impairments; difficulty initiating social interactions – may seem to have a decreased interest in social interactions. For example: This is the individual who can engage in a social conversation, but the back and forth in the conversation fails; another example would be the person who tries to make friends, seems “odd” and is typically unsuccessful in his (or her) efforts to make friends.**
 - b) Restricted, repetitive behaviors – inflexible behavior causes interference with functioning; difficult to switch between activities. For example: this is the individual who has difficulty organizing and planning that hampers independence.**