Typical and Atypical Childhood Development Course:  
Module 4 Diagnostic Supplements

Sam (age 14)

In summary, Sam is a 14-year-old boy with Down syndrome. (DS)

(DS) Down syndrome is a genetic chromosomal disorder and occurs by chance at conception with full or partial extra copy of chromosome 21 (or Trisomy 21). Additional genetic material alters course of development and causes the characteristics associated with DS. Some common characteristic physical traits are low muscle tone, small stature, an upward slant to the eyes, a single deep crease across the center of the palm; congenital heart defect, early onset Alzheimer's disease, childhood leukemia, thyroid conditions and intellectual disability (mild to moderate). Although each person with DS is a unique individual disorder and which may possess these characteristics to different degrees or not at all. About 1 in every 700 babies are born with DS making this the most common chromosomal condition in population of people with intellectual and developmental disabilities. About 6,000 babies with Down syndrome are born in the US each year. As a group of people, DS makes up the largest group of people diagnosed with developmental & intellectual disabilities.

Brandon (age 15)

In summary, Brandon is a 15 year old boy who has been diagnosed with autism (ASD) and has significant anxiety and aggressive behaviors.

ASD (Autism Spectrum Disorder via publication of DSM 5). ASD refers to a range of conditions characterized by challenges with social skills, repetitive behaviors, speech and nonverbal communication, as well as by individual unique strengths and differences. There is not one autism but many types, caused by different combinations of genetic and environmental influences. Term "spectrum" reflects wide variation in challenges and strengths possessed by each person with autism. The most-obvious signs of the disorder tends to appear between 2 and 3 years of age. In some cases, it can be diagnosed as early as 18 months. Disorder characterized by challenges with social skills, repetitive behaviors, speech and nonverbal communication, as well as by unique strengths and differences. Autism’s prevalence is 1 in 68 children; 1 in 42 boys and 1 in 189 girls. Around one third of people with autism remain nonverbal and another one third of people with autism have an intellectual disability. Frequently medical and mental health issues frequently accompany autism. They include gastrointestinal (GI) disorders, seizures, sleep disturbances, attention deficit and hyperactivity disorder (ADHD), anxiety and phobias.

Anxiety and aggression happens when the amygdala part the brain, senses trouble. When threat, real or imagined, it surges the body with hormones (including cortisol, the stress hormone) and adrenaline to make the body strong, fast and powerful. This is the fight or
flight response and it has been identified early in recording human behavioral literature history...healthy brains are meant to do per several theorists.

An anxious brain is a strong, healthy brain but can be a little overprotective. It is more likely to sense threat and hit the panic button 'just in case'. When this happens often, it can create ‘anxiety about the anxiety’. One of the challenging things about anxiety is the way it launches without warning, and often without need, sending an unsuspecting body unnecessarily into fight or flight.

For children with anxiety, any situation that is new, unfamiliar, difficult or stressful counts as a potential threat. The fight or flight response happens automatically and instantaneously, sending neurochemicals surging through their bodies, priming them for fight or flight. Every physical symptom that comes with anxiety – racy heart, sick tummy, clammy skin, vomiting, shaky arms or legs – is because of the surging of these neurochemicals. The natural end to the fight or flight response is intense physical activity. If the threat was real, they’d be fighting for their lives or running for it. When there is no need to fight or flee, there is nothing to burn up the neurochemicals and they build up, causing the physical symptoms of anxiety and can create physical symptoms. This angry behavior and the signs of anxiety and can result in some ways such as types of avoidant behavior, sick tummies, headaches, sensitivity to new or unfamiliar situations. Many times results in such phenomena as meltdowns or tantrums.

Jayla (age 16)

In summary, Jayla is a 16-year-old girl who was diagnosed with Prader-Willi Syndrome (PWS) as an infant.

PWS is a genetic disorder involving the 15th chromosome.... PWS affects between 1 in 10,000 males and females are affected equally. Symptoms range from poor muscle tone during infancy to behavioral problems in early childhood. Symptoms are usually found in infants with poor muscle tone, lack of eye coordination; frequently born with almond-shaped eyes; and because of poor muscle tone may not have a strong sucking reflex. Their cry is weak and they have difficulty waking up. Another sign of condition is a thin upper lip. Food seeking behaviors can include an instantiable appetites which can be challenging behavior for care givers, teachers, etc. Growth hormone treatment-therapy around puberty can have significant positive improvement in growth/development & quality of life. Health management can include obesity, weight gain including food seeking behaviors. Other health related concerns include hypotonia and abnormal neurologic function, hypogonadism, developmental and cognitive delays, hyperplasia, short stature, and co-occurring, social, behavioral and psychiatric disorders.
In summary, Emma is a 16-year-old girl who was diagnosed with bi-polar disorder...

Bipolar depression is a serious mental health disorder...a lifelong chronic illness frequently referred to as manic depression. It’s a condition that affects the brain in a way that can cause extreme mood swings that vary in length. People with bipolar disorder can go from mania (the “highs”)—feeling euphoric or revved up and irritable—to depression (the “lows”)—feeling down or hopeless. These highs and lows are called “episodes.” About ½ of all patients begin seeing symptoms between ages 15 and 25; people with bipolar disorder(s) often experience other co-occurring mental health disorders. There is no cure, but for many people the symptoms can be controlled with medication and other treatment interventions and frequently misdiagnosed as having only depression.

Anton (20 years)

In summary, when Anton was in preschool, he was diagnosed with pervasive developmental disorder (PDD)...and a cognitive disorder.

(PDD has been updated with ASD (Autism Spectrum Disorder via publication of DSM 5). ASD refers to a range of conditions characterized by challenges with social skills, repetitive behaviors, speech and nonverbal communication, as well as by individual unique strengths and differences. There is not one autism but many types, caused by different combinations of genetic and environmental influences. Term “spectrum” reflects wide variation in challenges and strengths possessed by each person with autism. The most-obvious signs of the disorder tends to appear between 2 and 3 years of age. In some cases, it can be diagnosed as early as 18 months. Disorder characterized by challenges with social skills, repetitive behaviors, speech and nonverbal communication, as well as by unique strengths and differences. Autism's prevalence is 1 in 68 children; 1 in 42 boys and 1 in 189 girls. Around one third of people with autism remain nonverbal and another one third of people with autism have an intellectual disability. Frequently medical and mental health issues frequently accompany autism. They include gastrointestinal (GI) disorders, seizures, sleep disturbances, attention deficit and hyperactivity disorder (ADHD), anxiety and phobias.

Cognitive disability now correctly referenced as intellectual disability is a neurodevelopmental disorder that typically begins in early childhood and before age 18. Characterized by deficits in general mental or cognitive abilities along with delays in adaptive functioning in conceptual, social and practical domains. Intelligence — assessed IQ test generally around 70 - 75 along with significant impairments in adaptive behavior in practical skills such as activities of daily living (personal care), occupational skills, healthcare, travel/transportation, schedules/routines, safety, use of money, use of the telephone, etc. Also conceptual skills in language/literacy; money management, time, number concepts; and self-direction. Also social skills including interpersonal skills, social responsibility, self-esteem, gullibility, social problem solving, and the ability to follow rules/obey laws and to avoid being victimized.