**ADHD TO AUTISM**

**PRIDE ADVANCED INSERVICE TRAINING**

**Trainer's Manual**

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**PRIDE**

**PARENT RESOURCES FOR INFORMATION, DEVELOPMENT, AND EDUCATION**

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**OUTLINE/AGENDA**

**PART I Welcome and Introductions (15 minutes)**

1. **Facilitator introduction and opening remarks**
   * + 1. **Participant introductions**
2. **Purpose of the Module**

**1. Additional Trainings**

1. **Review Agenda**

**PART II Attention Deficit Hyperactivity Disorder (ADHD) (1 hour 15 minutes)**

1. **General Description**
2. **History**

**C. Core Characteristics / Diagnostic Criteria**

**1. Inattention**

**2. Hyperactivity-Impulsivity**

**3. Assessment**

**D. Case Examples**

**1. Linda - Predominantly Inattentive**

**2. Clark - Predominantly Hyperactive-Impulsive**

**3. John - Combined Type**

**E. Co-Occurring Disorders**

**1. Behavioral Problems**

**a. Oppositional Defiant Disorder**

**b. Conduct Disorder**

**2. Learning Problems / Disorders**

**3. Anxiety and Depression**

**F. Other Associated Issues**

**1. Peer Relationships**

**2. Injuries**

**G. Causes**

**H. Other Conditions That Resemble ADHD**

**I. Prevalence**

**J. Treatment / Interventions**

**1. Behavior Therapy / Parent Training**

**2. Medications**

**3. School Accommodations**

**K. Resources For Further Information**

**BREAK (15 minutes)**

**PART III: Autism Spectrum (1 hour 15 minutes)**

**A. General Description**

**B. History**

**C. Core Characteristics / Diagnostic Criteria**

1. Social Communication / Interaction

2. Restrictive / Repetitive Behaviors

3. Diagnostic / Assessment

**D. Case Examples**

**E. Co-Occurring Disorders**

**1. Anxiety**

**2. Depression**

**3. Bipolar Disorder**

**4. Attention Deficit Hyperactivity Disorder**

**5. Behavioral Disorders**

**a. Oppositional Defiant Disorder**

**b. Conduct Disorder**

**6. Schizophrenia and Psychotic Disorders**

**F. Other Associated Issues**

**G. Causes**

**H. Other Conditions That Resemble ASD**

**I. Treatment / Interventions**

**1. Early Intervention Services**

**2. Behavior and Communication Approaches**

**3. Other Interventions**

**J. Resources For Further Information**

**PART IV: Closing**

**A. Evaluation Forms**

**B. Distribution of Certificates**

**PART I: Welcome and Introductions (15 Minutes)**

1. **SLIDE 2 Welcome Remarks and Trainer Introductions: Trainer should welcome the group and acknowledge their dedication to the program and to the children and their families. Trainer and Co-Trainer should provide information about their credentials, background and experience. Have participants briefly introduce themselves and provide some information such as how long they have been a foster/adoptive parent.**

* **Trainer Note: Make sure to address the appreciation and important job the resource families are doing for the children**

1. **SLIDE 3 Purpose of the Module: The purpose of the ADHD to Autism Module, is to give you accurate information about the disorders as you may have already encountered these conditions with your biological children and you might encounter these with some of children in foster care. Furthermore, this training should help correct any misinformation that you may have received about these conditions as they are frequently misunderstood.**

* **SLIDE 4 (Trainer Note) Remind that additional trainings can be found at WVFACT** [**https://www.wvfact.com**](https://www.wvfact.com) **and that they need to preregister for any sessions they plan to attend by contacting Concord University at** [**wvfact@concord.edu**](mailto:wvfact@concord.edu) **or 304-716-4619**

1. **SLIDE 5 & 6 Review Objectives and Agenda: Refer to Outline and provide overview of what will be targeted regarding each disorder discussed.**

* **Trainer Note: There is a brief outline in their power point slides and a more specific one in the handouts**

**PART II: Attention Deficit Hyperactivity Disorder (1hour 15 minutes)**

1. **SLIDE 8 General Description**

**Attention-deficit/hyperactivity disorder (ADHD) is one of the most common mental disorders affecting children. ADHD also affects many adults who were either diagnosed or not diagnosed as children. Even though the symptoms of ADHD can change over time, it is considered a lifelong disorder. That means that it is a condition that is managed not cured. It is a condition that can affect boys or girls.**

**In viewing the definition, we need to be aware of normal developmental milestones in children to determine if behavior is age-appropriate or age-inappropriate. Furthermore, these behaviors must be severe enough to warrant problems in various areas of one's life (e.g., school, home, social, employment, etc...) not just one area.**

* **(Trainer Note) Remind participants to review developmental milestones discussed in their Pre-Service. This site has age specific information as well as pictures and videos. Can be found at:** <https://www.cdc.gov/ncbddd/actearly/milestones/index.html>
* **SLIDE 9 Normal behavior vs. ADHD**

**Most healthy children are inattentive, hyperactive or impulsive at one time or another. It's normal for preschoolers to have short attention spans and be unable to stick with one activity for long. Even in older children and teenagers, attention span often depends on the level of interest.**

**The same is true of hyperactivity. Young children are naturally energetic — they often are still full of energy long after they've worn their parents out. In addition, some children just naturally have a higher activity level than others do. Children should never be classified as having ADHD just because they're different from their friends or siblings.**

**Children who have problems in school but get along well at home or with friends are likely struggling with something other than ADHD. The same is true of children who are hyperactive or inattentive at home, but whose schoolwork and friendships remain unaffected.**

**SLIDE 10 ADHD is the general term for the condition. Depending on symptoms presented, the person will be diagnosed with a specific subtype: inattentive type, hyperactive/impulsive type or combined type.**

**Inattention is a term used to describe one that is not focusing on demands and behaving carelessly, as if not listening.**

**Hyperactivity means one who is constantly in motion, at least, most of the time. Impulsivity represents acting without thinking.**

**It is important to note that all these behaviors may be intentionally produced possibly as a means to gain attention or in a child that has behavior problems due to one reason or another. With the person with ADHD, however, these behaviors are not intentional. In fact, a common frustration for individuals with ADHD is that they cannot effectively manage these tendencies.**

**B. SLIDE 11 History**

* **Trainer Note: You do not need to go over all of these. Discuss the general history of ADHD hitting a few of the highlights. The complete list is in the Participants handouts – Page 4**

**Over the years, numerous biomedical and psycho-social explanations have been given to explain the problematic behaviors associated with ADHD.**

* **1798 Sir Alexander Crichton (Scottish Physician) referenced first example of a disorder that appears to be similar to ADHD**
* **1844, the German physician Heinrich Hoffmann created some illustrated children’s stories including “Fidgety Phil”**
* **1902 Sir George Still (The father of British pediatrics) First to describe ADHD**
* **1917 to 1918 Encephalitis epidemic - behavioral symptoms which we now know as ADHD were termed brain-injured child syndrome and were associated with mental retardation.**
* **1923 Franklin Ebaugh (Researcher) evidence that ADHD could arise from brain injury**
* **1952 First Diagnostic and Statistical Manual (DSM I) developed – ADHD was referred to as Minimal Brain Dysfunction**
* **1967 Federal government funds (National Institute of Mental Health) first used for studying effect of stimulants on children with hyperactivity**
* **1968 DSM-II – Hyperkinetic Reaction of Childhood**
* **1980 DSM-III – Attention Deficit Disorder with or without Hyperactivity**
* **1987 DSM-IIIR – Attention Deficit Hyperactivity Disorder, Undifferentiated Attention Deficit Disorder**
* **1994 DSM-IV / DSM-IV TR (text revision) – Attention Deficit Hyperactivity Disorder, Inattentive Type, Hyperactive Type, Combined Type**
* **2013 DSM-V – Attention Deficit Hyperactivity Disorder, Combined Presentation, Predominantly Inattentive Presentation, Predominantly Hyperactivity/Impulsivity Presentation**

**C. SLIDE 12 Core Characteristics /Diagnostic Criteria**

**The Diagnostic and Statistical Manual of Mental Disorders - Fifth Edition (DSM-V) is the existing system for making mental health diagnosis. ADHD is diagnosed as one of three types: inattentive type, hyperactive/impulsive type or combined type. A diagnosis is based on the symptoms that have occurred over the past six months. In the last edition of the DSM (DSM -IV-TR), criteria needed to present before the age of 7. In the current edition, criteria needed to be present before the age of 12.**

* **Trainer Note – do not read the diagnostic criteria – summarize for the audience. Make sure they know what is meant by “persistent pattern”**
* **A persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development, as characterized by (1) and/or (2):**

**SLIDE 13 – 16 Inattention: Six (or more) symptoms have persisted for at least 6 months to a degree that is inconsistent with developmental level and that negatively impacts directly on social and academic/occupational activities:**

**The symptoms are not solely an expression of oppositional behavior, defiance, hostility, or failure to understand tasks or instructions. For older adolescents and adults (age 17 and older), at least five symptoms are required.**

* **Trainer Note: Can summarize the diagnostic criteria for the next sections– but make sure that OFTEN is emphasized. Again discuss knowing developmental levels and discuss how this applies. For example young children have trouble maintaining attention and this is developmentally normal**
* **Often fails to give close attention to details or makes careless mistakes in schoolwork, at work, or during other activities (e.g., overlooks or misses details, work is inaccurate).**
* **Often has difficulty sustaining attention in tasks or play activities (e.g., has difficulty remaining focused during lectures, conversations, or lengthy reading).**
* **Often does not seem to listen when spoken to directly (e.g., mind seems elsewhere, even in the absence of any obvious distraction).**
* **Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (e.g., starts tasks but quickly loses focus and is easily sidetracked).**
* **Often has difficulty organizing tasks and activities (e.g., difficulty managing sequential tasks; difficulty keeping materials and belongings in order; messy, disorganized work; has poor time management; fails to meet deadlines).**
* **Often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (e.g., schoolwork or homework; for older adolescents and adults, preparing reports, completing forms, reviewing lengthy papers).**
* **Often loses things necessary for tasks or activities (e.g., school materials, pencils, books, tools, wallets, keys, paperwork, eyeglasses, mobile telephones).**
* **Often easily distracted by unimportant stimuli (for older adolescents and adults, may include unrelated thoughts).**
* **Often forgetful in daily activities (e.g., doing chores, running errands; for older adolescents and adults, returning calls, paying bills, keeping appointments).**

**Hyperactivity and impulsivity: Six (or more) of the following symptoms have persisted for at least 6 months to a degree that is inconsistent with developmental level and that negatively impacts directly on social and academic/occupational activities:**

**The symptoms are not solely an expression of oppositional behavior, defiance, hostility, or a failure to understand tasks or instructions. For older adolescents and adults (age 17 and older), at least five symptoms are required.**

* **Often fidgets with or taps hands or feet or squirms in seat.**
* **Often leaves seat in situations when remaining seated is expected (e.g., leaves his or her place in the classroom, in the office or other workplace, or in other situations that require remaining in place).**
* **Often runs about or climbs in situations where it is inappropriate. (Note: In adolescents or adults, may be limited to feeling restless.)**
* **Often unable to play or engage in leisure activities quietly.**
* **Is often “on the go,” acting as if “driven by a motor” (e.g., is unable to be or uncomfortable being still for extended time, as in restaurants, meetings; may be experienced by others as being restless or difficult to keep up with).**
* **Often talks excessively.**
* **Often blurts out an answer before a question has been completed (e.g., completes people’s sentences; cannot wait for turn in conversation).**
* **Often has difficulty waiting his or her turn (e.g., while waiting in line).**
* **Often interrupts or intrudes on others (e.g., butts into conversations, games, or activities; may start using other people’s things without asking or receiving permission; for adolescents and adults, may intrude into or take over what others are doing).**
* **Several inattentive or hyperactive-impulsive symptoms were present prior to age 12 years. (Changed from prior to age 7 in DSM-IV)**
* **Several inattentive or hyperactive-impulsive symptoms are present in two or more settings (e.g., at home, school, or work; with friends or relatives; in other activities).**
* **There is clear evidence that the symptoms interfere with, or reduce the quality of, social, academic, or occupational functioning.**
* **The symptoms do not occur exclusively during the course of another disorder.**

**Types:**

* **Combined presentation: If both Criterion A1 (inattention) and Criterion A2 (hyperactivity-impulsivity) are met for the past 6 months.**
* **Predominantly inattentive presentation: If Criterion A1 (inattention) is met but Criterion A2 (hyperactivity-impulsivity) is not met for the past 6 months.**
* **Predominantly hyperactive/impulsive presentation: If Criterion A2 (hyperactivity/impulsivity) is met but Criterion A1 (inattention) is not met over the past 6 months.**

**Any of the types can be mild, moderate or severe**

* **SLIDE 17 Diagnosis / Assessment**

**There are no accurate lab tests to diagnose ADHD. Diagnosis involves gathering information from parents, teachers and others, filling out checklists and having a medical evaluation (including vision and hearing screening) to rule out other medical problems, a psychological evaluation to rule out other mental health or learning problems. The symptoms cannot be the result of person being defiant or hostile or unable to understand a task or instructions. It is important for a trained professional to adequately assess and differentiate symptoms of an individual to suggest the appropriate course of treatment.**

* Psychological Evaluation - This comprehensive assessment analyzes how an individual’s brain functions, and is used to identify brain-based disorders like ADHD, autism, and learning disabilities. This type of evaluation involves an interview, input from other sources (i.e. parents, teachers, and family members) through questionnaires and rating scales, plus pencil-and-paper tests. It may also include the review of a student’s work and grades, when applicable. The evaluation analyzes some or all of the following areas, depending on the patient’s symptoms and complaints:
  + intelligence
  + executive functioning
  + processing
  + attention
  + memory
  + visual–spatial functioning
  + communication/language skills
  + emotions and mood
  + personality
  + sensory integration / processing
  + motor skills
  + academics
* There are many tests and questionnaires that can be utilized. For full testing, a psychologist will determine the tools that are most appropriate. Other professionals may utilize some of the questionnaires to gather information. Some of these can include:
  + Vanderbilt Assessment Scales
  + Conner’s Parent and Teacher Rating Scales
  + Vineland Adaptive Behavior Scales
  + Behavior Assessment System for Children (BASC)
  + Barkley Home and School Situations Questionnaires
  + Wechsler Intelligence Scale for Children (WISC-V)
  + Woodcock Johnson III Tests of Cognitive Abilities
  + Wechsler Individual Achievement Test (WIAT-III)
  + Additional language tests include GORT, Boston Naming, HRB-Aphasia
* **Trainer Note: All of the areas listed above can be briefly discussed. The importance is to emphasize the importance of getting a complete evaluation of symptoms**

1. **Subtypes with examples**

* **SLIDE 18 Examples are located in the Participants Handouts – pages 5-7. Have the class read each one and find the criteria that fits each subtype. Trainer can make corrections and provide guidance**
* **Example: Inattention**

**Linda is 16 years old and in the 10th grade. According to Linda and her parents, she has had difficulty paying attention “for years”. Her parents had a psychological evaluation completed when she was in the 4th grade and again in the 8th grade to make sure that she did not have a learning disorder. Both evaluations showed her to be in the above average range of intelligence but showed difficulty with concentration that lead her achievement to be below her abilities. She continues to battle with paying attention and despite being smart, struggles to keep her grades above passing. Her teachers report that during her classes, Linda is quiet and cooperative but often seems to be daydreaming. She often fails exams and assignments. During tests, she knew the answers but couldn't keep her mind on the test and as a result she would either not finish or guess the answers. Her parents responded to her low grades by taking away privileges and scolding her, "You’re just lazy. You could get better grades if you only tried." Linda is extremely reluctant to do her homework. It is a battle of wills between her and her parents nightly. Often, she would forget what was assigned or if she did remember she would forget the necessary books or papers at school. When she did do her homework, she would spend hours and often forget to turn it in the next day. When trying to do her in class work, she often found her mind drifting to something else. As a result, she rarely finished her work and what she did complete was full of errors.**

* **Example: Hyperactive-Impulsive Type**

**Clark, age 12, has more energy than most boys his age. His mother reported “he's always been overactive”. By age 3 he was a “human cyclone”, dashing around and disrupting everything in his path. When his mother would take him to the store, he would frequently wonder off and she would usually find him climbing on shelves and clothing racks. At home, he darted from one activity to the next, leaving a trail of toys behind him. He frequently had difficulty playing quietly. At meals, he would spend so much time playing with and spilling his food, talking nonstop, and getting up and down from the table, he would not finish eating. He was reckless and impulsive, running into the street despite oncoming cars, no matter how often his mother explained of the danger or scolded him. When he was 10, his mother caught him holding on to the bumper of the neighbor’s car while riding his skateboard. At the playground, he has the tendency to overreact when frustrated. It is not uncommon for him to hit other kids simply for bumping into him. This has led to other kids not wanting to play with him. During activities, he has difficulty waiting his turn and will frequently say whatever he is thinking, without regard to other’s feelings. His mother reports that Clark is frequently in trouble at school – he will get a disciplinary form at least twice a month. He has had multiple detentions and in school suspensions. She has been told that the next offense will result in out of school suspension. Clark is a restless sleeper and it is not uncommon that by morning all his bedding is in the floor. His parents didn't know what to do. Clark's doting grandparents reassured them. "Boys will be boys. Don't worry, he'll grow out of it." But he didn't.**

* **Example: Combined Type**

**John is a 9-year-old whose mother is desperate for help. "He started walking at 10 months and has kept me running ever since. As a child he was always bouncing around the house and crashing into things. He's in constant motion, impulsive, and never listens. When I ask him to put his shirt in the hamper, I find him playing, his shirt still on the floor. John has no routines and seldom sleeps more than 5-6 hours per night. Discipline doesn't work, nor do the techniques that work for my other boys. He's oblivious to his behavior. He never finishes anything, and except for sitting down to play a video game – he can do that for hours. He rarely watches TV except on the run."**

**John's teacher says his problems in school are staying on task and keeping track of what's happening. "He blurts things out in class and is constantly fidgeting or out of his chair," she says. He has gotten in to trouble multiple times for talking to his classmates and bothering things belonging to others. He recently took a cell phone from his teacher’s desk and brought it home. Although John can complete his assignments, he forgets to bring home the book he needs to do his homework. When he does complete his homework, he forgets to put it in his backpack or to hand it in. John has great difficulty waiting his turn or, following rules with other children. Other kids think he's weird and don't want to play with him. Johns mother sought help after he gave his 4-year-old brother a book of matches and showed him how to strike them. His parents are discouraged and don't know what to do.**

**E. SLIDE 19 Co-Occurring Disorders**

**Attention-Deficit/Hyperactivity Disorder (ADHD) can occur alone, but often occurs with other disorders. The combination of ADHD with other disorders often presents extra challenges for children, parents, educators, and healthcare providers. Therefore, it is important that every child with ADHD be screened for other disorders and problems.** **The 2007 National Survey of Children’s Health (NCSH) found that 33% of the children with ADHD had one coexisting condition, 16% had two, and 18% had three or more (Larson 2011):**

**ADHD and Coexisting / Co-Occurring Conditions**

|  |  |  |
| --- | --- | --- |
| **Coexisting Disorder** | **Children with ADHD** | **Children without ADHD** |
| **Learning Disability** | **45%** | **5%** |
| **Conduct Disorder** | **27%** | **2%** |
| **Anxiety** | **18%** | **2%** |
| **Depression** | **15%** | **1%** |
| **Speech Problems** | **12%** | **3%** |

* **Behavioral**

**Children occasionally act angry or defiant around adults or respond aggressively when they are upset. When these behaviors persist over time, or are severe, they can become a behavior disorder. Children with ADHD are more likely to be diagnosed with a behavior disorder such as Oppositional Defiant Disorder or Conduct Disorder.**

* **Oppositional Defiant Disorder**

**Oppositional Defiant Disorder (ODD) is one of the most common disorders occurring with ADHD. Signs of ODD generally begin during preschool years. These behaviors cause significant impairment with family, social activities, school and work. Children with ODD may be most likely to act oppositional or defiant around people they know well, such as family members or a regular care provider. Children with ODD show these behaviors more often than other children their age.** **Behaviors are “outside a range that is normative for the individual’s developmental level, gender and culture” and “impairs social, educational, occupational or other functioning” (American Psychiatric Association, DSM-V) Core symptoms of ODD include: Angry and irritable mood, Argumentative and defiant behavior, Vindictiveness**

* **Conduct Disorder**

**Conduct disorder is a type of behavior disorder. It’s when a child has antisocial behavior. He or she may disregard basic social standards and rules. The aggression toward others, and serious violations of rules and social norms at home, in school, and with peers. behaviors often lead to breaking the law and being jailed.** Behaviors are “impairs social, educational, occupational or other functioning”(American Psychiatric Association, DSM-V) **Core symptoms of CD include: Aggression to People and Animals, Destruction of Property, Deceitfulness or Theft, Serious Violations of Rules**

* **Learning Issues and Disorders**

**Many children with ADHD can also have a learning disorder. This is in addition to other symptoms of ADHD, such as difficulty paying attention, staying on task, or being organized, which also keep a child from doing well in school. Having a learning disorder means that a child has a clear difficulty in one or more areas of learning, even when their intelligence is not affected.** Learning disorders include: Impairment in reading, written expression or mathematics

* Problems with executive functioning

Many of the symptoms classified as ADHD symptoms of inattention are actually symptoms of executive function impairments. Executive function refers to a wide range of central control processes in the brain that activate, integrate, and manage other brain functions.

Thomas E. Brown, Ph.D., of Yale University compares executive function to the conductor of an orchestra.  The conductor organizes, activates, focuses, integrates, and directs the musicians as they play, enabling the orchestra to produce complex music. Similarly, the brain's executive functions organize, activate, focus, integrate and direct, allowing the brain to perform both routine and creative work.

The components of executive functioning that impact school or work:

* Working memory and recall (holding facts in mind while manipulating information; accessing facts stored in long-term memory)
* Activation, arousal and effort (getting started; paying attention; completing work)
* Emotional control (tolerating frustration; thinking before acting or speaking)
* Internalizing language (using self-talk to control one's behavior and direct future actions)
* Complex problem solving (taking an issue apart, analyzing the pieces, reconstituting and organizing them into new ideas) <http://www.help4adhd.org/Understanding-ADHD/About-ADHD/The-Science-of-ADHD.aspx>
* **Anxiety and Depression**
* **Anxiety**

**Many children have fears and worries. Developmentally, fears can be normal and will change as children grow and develop.** However, when a child experiences so many fears and worries that they interfere with school, home, or play activities, it is an anxiety disorder. **Core symptoms of anxiety include: Excessive worry, Physical symptoms (racing heart, sweating, shaking, shortness of breath, etc.), Avoidance**

**Common, developmentally normal fears can include:**

* **Babies experience stranger anxiety, clinging to parents when confronted by people they don't recognize.**
* **Toddlers around 10 to 18 months old experience separation anxiety, becoming emotionally distressed when one or both parents leave.**
* **Kids ages 4 through 6 have anxiety about things that aren't based in reality, such as fears of monsters and ghosts.**
* **Kids ages 7 through 12 often have fears that reflect real circumstances that may happen to them, such as bodily injury and natural disaster.**

**Types of anxiety disorders include:**

* **Separation anxiety – being very afraid when they are away from attachment figure**
* **Social anxiety – fear or anxiety regarding social situations that might bring judgment from others**
* **Generalized anxiety – excessive worry about any number of circumstances or activities**
* **Panic Disorder – Recurrent panic attacks – sudden onset of extreme anxiety symptoms**
* **Specific Phobia – Fear or Anxiety about a specific object or situation (Water, Storms, The Dark, Dogs)**
  + **Depression**

**More than occasional sadness, depression is a when child feels persistent sadness and hopelessness. Children with ADHD are more likely than children without ADHD to develop childhood depression. Children may be more likely to feel hopeless and sad when they can’t control their ADHD symptoms and the symptoms interfere with doing well at school or getting along with family and friends. Examples of behaviors often seen when children are depressed include: feeling sad or hopeless a lot of the time, not wanting to do things that are fun, isolating themselves, having a hard time focusing, feeling worthless or useless, changes in eating and sleeping.**

**F. SLIDE 20 – 21 Associated Issues**

* **Difficulty with Peer Relationships**

**ADHD can make peer relationships or friendships very difficult. Having friends is important to children’s well-being and may be very important to their long-term development.**

**Although some children with ADHD have no trouble getting along with other children, others have difficulty in their relationships with their peers; for example, they might not have close friends, or might even be rejected by other children. Children who have difficulty making friends might also more likely have anxiety, behavioral and mood disorders, substance abuse, or delinquency as teenagers.**

**How does ADHD interfere with peer relationships?**

**Exactly how ADHD contributes to social problems is not fully understood. Children who are inattentive sometimes seem shy or withdrawn to their peers. Children with symptoms of impulsivity/hyperactivity may be rejected by their peers because they are intrusive, may not wait their turn, or may act aggressively. In addition, children with ADHD are also more likely than those without ADHD to have other disorders that interfere with getting along with others.**

* **Risk of Injuries**

**Children and adolescents with ADHD are likely to get hurt more often and more severely than peers without ADHD. Research indicates that children with ADHD are significantly more likely to: Get injured while walking or riding a bicycle, Have head injuries, Injure more than one part of their body, Be hospitalized for unintentional poisoning, Be admitted to intensive care units or have an injury resulting in disability**

**More research is needed to understand why children with ADHD get injured, but it is likely that being inattentive and impulsive puts children at risk. For example, a young child with ADHD may not look for oncoming traffic while riding a bicycle or crossing the street or may do something dangerous without thinking of the possible consequences. Teenagers with ADHD who drive are more likely to have problems with driving, including breaking traffic rules, getting traffic tickets, and being in a crash than drivers without ADHD**

**G. SLIDE 22 – 24 Conditions that can mimic ADHD**

**According to Dr.** Claire McCarthy, Faculty Editor, Harvard Health Publishing <https://www.health.harvard.edu/blog/5-common-problems-that-can-mimic-adhd-2018010913065> other health conditions can resemble ADHD and should be evaluated.

* **Trainer’s note: Summarize the key points of the other health conditions. Also, next sections are about the importance of getting problems screened. Sometimes the way to a diagnosis of ADHD is to make sure of what it isn’t**
* Hearing problems: If you can’t hear well, it’s hard to pay attention — and easy to get distracted. Now that more newborns are being screened for hearing problems before leaving the hospital, it is easier to catch more cases early, but some newborns can slip through the cracks. Children can also develop hearing problems from getting lots of ear infections. Any child with behavioral or learning problems should have a hearing test to be sure their hearing is normal.
* Learning or cognitive disabilities: If children don’t understand what’s going on around them, it’s hard for them to focus and join in classwork. Children who have trouble understanding may also have difficulty with social interactions, which can be very quick, complex, and nuanced. Any child who is doing poorly in school should be evaluated and given the help they need. All public schools have a process for evaluating children and creating an Individualized Education Program, or IEP, for those who need help. Even if a child goes to an independent school, they can still get an evaluation through the public schools or potentially private providers. Parents should talk to their child’s teacher and their pediatrician for guidance.
* Sleep problems: Children who don’t get enough sleep, or whose sleep is of poor quality, can have trouble with learning and behavior. Any child who snores regularly (not just with a bad cold) should be evaluated by their doctor, especially if there are any pauses in breathing or choking noises during sleep. Parents of teens should be sure that their children are getting at least eight hours of sleep and aren’t staying up doing homework or on their phones. In general, any time a diagnosis of ADHD is being considered, it’s important to take a close look at a child’s sleep and make sure there aren’t any problems.
* Depression or anxiety: It is hard to concentrate when you are sad or worried, and it’s not uncommon for a depressed or anxious child to act out and get in trouble. [More than one in 10 adolescents has suffered from depression](https://www.nimh.nih.gov/health/statistics/prevalence/major-depression-among-adolescents.shtml), and the numbers are higher for anxiety. Even more alarming, both depression and anxiety often go undiagnosed — and untreated — among children and adolescents. As part of any evaluation for ADHD, a child should also be evaluated for other mental health issues, not just because they can mimic ADHD, but because other mental health issues can occur with, or because of, ADHD.
* Substance abuse:This is something that should always be considered in an adolescent, especially if the ADHD symptoms weren’t present earlier in childhood (by definition, [you have to have the symptoms before age 12](https://www.nimh.nih.gov/health/topics/attention-deficit-hyperactivity-disorder-adhd/index.shtml) to get the diagnosis). Nobody wants to think that their child could be using drugs or alcohol, but [by 12th grade about half of youth have tried an illicit drug at least once](https://www.hhs.gov/ash/oah/adolescent-development/substance-use/drugs/index.html), and for some, it can turn into a habit — or worse.

**H. SLIDE 25 – 26 Causes**

Some of the most prestigious scientific-based organizations in the world conclude that ADHD is a real disorder with potentially devastating consequences when not properly identified, diagnosed and treated. (<http://www.help4adhd.org/Understanding-ADHD/About-ADHD/The-Science-of-ADHD.aspx> )

* Research has demonstrated that ADHD has a very strong neurobiological basis. No precise cause has been identified – heredity has continued to be the largest contributor to the appearance of the disorder in the population.
* Aside from heredity other causes can include;
  + Difficulties during pregnancy
  + Prenatal exposure to alcohol, drugs and tobacco
  + Premature delivery
  + Significantly low birth weight
  + Excessively high body lead levels
  + Postnatal injury to the prefrontal regions of the brain
* Research **does not** support the popularly held views that ADHD comes from excessive sugar intake, excessive television viewing, poor child management by parents, or social and environmental factors such as poverty or family chaos.
  + The above as other things can worsen symptoms, especially in certain individuals.  There has been some accumulating evidence is sensitivity to food or additives such as colorings and preservatives.  Several controlled double-blind studies suggest that these might be important for a **minority** of children with ADHD, and a couple of controlled studies suggest a small effect on all children whether or not they have ADHD.  Further research on this is needed.
* A 10-year study by National Institute of Mental Health (NIMH), found that brains of children and adolescents with ADHD are 3-4% smaller than those of children who don't have the disorder and that **medication treatment is not the cause of the smaller size.** (National Institute of Mental Health).
* **Trainer Note: Point out how many folks – even professionals still do not think that ADHD is a real disorder and this leads to people having the disorder being stigmatized and feeling that they are failing. Also many people will not seek help due to feeling “it isn’t real”**

**I. SLIDE 27 Prevalence and Course**

**How common is ADHD in children (and adolescents)?**

* **The percent of children estimated to have ADHD has changed over time and its measurement can vary. The American Psychiatric Association states in the Diagnostic and Statistical Manual of Mental Disorders (DSM-V, 2013) that 5% of children have ADHD.**
* **Other studies in the US have estimated higher rates in community samples. Current statistics are that 1 in 10 children between the ages of 4-17 have been diagnosed with ADHD. (C. McCarthy, MD**

**Course over the lifespan**

* **ADHD is considered a lifelong disorder**
* **In adulthood some of the symptoms may change and some may be “in remission” Studies vary on the rates of this happening. Many adults may continue to need treatment of symptoms.**
* **Trainer Note: Again – emphasize that it is a lifelong disorder and that it continues to need treatment. Even as an adult – a person can be diagnosed and treated**

**J. SLIDE 28 - 31 Treatment / Intervention**

**When a child is diagnosed with ADHD, parents often have concerns about deciding the best way to help their child. It is important for parents to remember that ADHD can be successfully managed. There are many treatment options, so parents should work closely with everyone involved in the child’s life—healthcare providers, therapists, teachers, coaches, and other family members. Taking advantage of all the resources available will help parents guide their child towards success.**

* **Always start with a complete evaluation including physical, educational, mental health including psychological (testing) and psychiatric (psychiatrist).** In most cases, ADHD is best treated with a combination of behavior therapy and medication. For preschool-aged children (4-5 years of age) with ADHD, behavior therapy, particularly training for parents, is recommended as the first line of treatment.
* No single treatment is the answer for every child and good treatment plans will include close monitoring, follow-ups and any changes needed along the way. **Treatments include:**

**Behavior therapy**

**Parent training on behavioral techniques**

**Medications**

**School accommodations and interventions**

* **Behavior Therapy, Including Training for Parents**
* **Goals of behavior therapy are:**
  + Can include behavior therapy training for parents, behavior therapy with children, or a combination. Teachers can also use behavior therapy to help reduce problem behaviors in the classroom.
  + **For the child to learn or strengthen positive behaviors and eliminate unwanted or problem behaviors. A therapist works with** the child to learn new behaviors to replace behaviors that don’t work or are the cause of their problems. The therapist may also help the child learn to express feelings in ways that do not create problems for the child or other people.
  + **Parent training in behavior therapy/behavior management, allows parents to learn new skills or strengthen their existing skills to teach and guide their children and to manage their behavior. It does not set out to imply that the parent is not raising their child well. Parent training in behavior therapy has been shown to strengthen the relationship between the parent and child, and to decrease children’s negative or problem behaviors.**
* **Trainer Note: Families need to understand that learning new skills does not mean they are not good parents / caretakers or raising children right. You can use the comparison of a child being diagnosed with diabetes. The parents know how to take care of their kids – they will be learning specifics to help them manage the disorder (dietary changes, checking blood sugar levels, medications, recognizing behavioral changes that indicate changes in blood sugar levels)**
* **Why should parents try behavior therapy first before medication?** 
  + **Behavior therapy is an important first step because it gives parents the skills and strategies to help their child.** 
    - **It has been shown to work as well as medication for ADHD in young children. Young children have more side effects from ADHD medications than older children and the long-term effects of ADHD medications on young children have not been well-studied. (**<https://www.cdc.gov/ncbddd/adhd/treatment.html>**)**
* **SLIDE 32 Specific interventions showing positive effects:**
* **Triple P (Positive Parenting Program) (**<https://www.triplep.net/glo-en/home/>**)**
* **Incredible Years Parenting Program (**<http://www.incredibleyears.com/>**)** 
  + **Parent-Child Interaction Therapy (**<http://www.pcit.org/>**)**
  + **New Forest Parenting Programme — Developed specifically for parents of children with ADHD (**<http://guidebook.eif.org.uk/programmes/the-new-forest-parenting-programme>**)**
  + **Helping the Non-Compliant Child (**<http://www.cebc4cw.org/program/helping-the-noncompliant-child/detailed>)
* **Trainer Note: These are programs that parents can check out. Ideally, it is good to work with a therapist on behavioral techniques**
* **SLIDE 33 – 36 Tips for Parents**

**Following are examples that might help with your child’s behavior:**

* + **Create a routine. Try to follow the same schedule every day, from wake-up time to bedtime.**
  + **Get organized. Encourage your child to put schoolbags, clothing, and toys in the same place every day so your child will be less likely to lose them.**
  + **Manage distractions. Turn off the TV, limit noise, and provide a clean workspace when your child is doing homework. Some children with ADHD learn well if they are moving or listening to background music. Watch your child and see what works.**
  + **Limit choices but make sure they are age appropriate. Offer choices between a few things so that your child doesn’t get overwhelmed and overstimulated. For young children offer choices between two options, such as this outfit or that one, this meal or that one, or this toy or that one.**
  + **Be clear and specific when you talk with your child.** Use clear, brief directions when they need to do something. Instead of saying “clean your room” give a specific like “go and get all of your dirty clothes and put in this basket”. **Also, let your child know you are listening by describing what you heard them say.**
  + **Help your child plan. Break down complicated tasks into simpler, shorter steps. For long tasks, starting early and taking breaks may help limit stress.**
  + **Use goals and praise or other rewards. Use a chart to list goals and track positive behaviors, then let your child know they have done well by telling your child or rewarding efforts in other ways. Be sure the goals are realistic—baby steps are important!**
  + **Discipline effectively. Instead of yelling or spanking, use timeouts or removal of privileges as consequences for inappropriate behavior. Make sure to state clearly the expectations for behavior and the consequences. “If you don’t finish your homework, you cannot use your game system”. Make sure to be calm when stating consequences. It is better to set something you can stick to. CONSISTENCY IS IMPORTANT!!!**
  + **Create positive opportunities. Children with ADHD may find certain situations stressful. Finding out and encourage what your child does well — whether it’s school, sports, art, music, or play — can help create positive experiences.**
  + **Provide a healthy lifestyle. Nutritious food, lots of physical activity, and sufficient sleep are important; they can help keep ADHD symptoms from getting worse.**
* **SLIDE 37 - 38 Medications**
* Medication treatment may be an effective way to manage ADHD symptoms. Medication is an option that may help control some of the ADHD symptoms that have led to trouble in the past with family, friends and at school.
* Stimulants are the best-known and most widely used ADHD medications. Between 70-80 percent of children with ADHD have fewer ADHD symptoms when they take these fast-acting medications.
* **Trainer Note: It is not necessary to go over all of the medications listed – just discuss the categories. Also, make sure to let participants know that you are not going to offer medical advice. They need to talk with their own provider or see a specialist.**
* Stimulants can include:
* Short-Acting (lasting 4-6 hours and must be taken more than once a day):
* Amphetamine/Dextroamphetamine (Adderall, Adderall XR)
* Dextroamphetamine (Dexedrine, ProCentra, Zenzedi)
* Dexmethylphendiate (Focalin)
* Methylphenidate (Ritalin)
* Intermediate and Long Acting (lasting 6-12 hours):
* Amphetamine sulfate (Evekeo)
* Methylphenidate (Ritalin SR, Metadate ER, Methylin ER)
* Adzenys XR-ODT
* Dexmethylphenidate (Focalin XR)
* Dextroamphetamine (Adderall XR)
* Lisdexamfetamine (Vyvanse)
* Methylphenidate (Concerta, Daytrana, Metadate CD, Quillivant XR, Quillichew ER, Ritalin LA)
* Mixed salts of a single-entity amphetamine product (Mydayis)
* Nonstimulants were approved for treating ADHD in 2003.  Nonstimulants do not work as quickly as stimulants, but they can last up to 24 hours. Non-Stimulants can include:
* Atomoxetine (Strattera)
* Clonidine (Catapres)
* Clonidine ER (Kapvay)
* Guanfacine (Tenex)
* Guanfacine ER (Intuniv)
* **Antidepressants**
* **Bupropion (Wellbutrin, Wellbutrin SR, Wellbutrin XL)**
* **Desipramine (Norpramin)**
* **Imipramine (Tofranil)**
* **Nortriptyline (Aventyl, Pamelor)**
* **SLIDE 39 – 41 Classroom Management**

It is important for teachers to have the needed skills to help children manage their ADHD. However, since the majority of children with ADHD are not enrolled in special education classes, their teachers will most likely be regular education teachers who might know very little about ADHD and could benefit from assistance and guidance.

* Here are some tips to share with teachers for classroom success:
* Make assignments clear – check with the student to see if they understood what they need to do
* Give positive reinforcement and attention to positive behavior
* Make sure assignments are not long and repetitive. Shorter assignments that provide a little challenge without being too hard are best.
* Allow time for movement and exercise
* Communicate with parents on a regular basis
* Use a homework folder to limit the number of things the child has to track
* Be sensitive to self-esteem issues
* Minimize distractions in the classroom
* Involve the school counselor or psychologist
* Children with ADHD might be eligible for [special services](http://kidshealth.org/parent/growth/learning/iep.html) or accommodations at school under the Individuals with Disabilities in Education Act (IDEA) and an anti-discrimination law known as Section 504. The [U.S. Department of Education has developed a resource guide](http://www2.ed.gov/about/offices/list/ocr/letters/colleague-201607-504-adhd.pdf) to help educators, families, students, and other stakeholders better understand how these laws apply to students with ADHD so that they can get the services and education they need to be successful. (See resources below)

**K. Resources**

* **Trainers Note – all of the resources are listed in the participants handout – page 8. All you need to do is direct them to the section.**
* Attention Deficit Disorder Association (paid membership). International non-profit **–** 501C – organization founded over twenty-five years ago to help adults with Attention Deficit/Hyperactivity Disorder (ADHD) lead better lives. <https://www.add.org>
* National Resource on ADHD. Founded in 1987 in response to the frustration and sense of isolation experienced by parents and their children with ADHD. At that time, one could turn to very few places for support or information. <https://www.chadd.org> or
* MedlinePlus – National Library of Medicine. National Institutes of Health's Web site for patients and their families and friends. Produced by the National Library of Medicine, the world’s largest medical library <https://medlineplus.gov>
* Center for Disease Control <https://www.cdc.gov>
* American Academy of Child and Adolescent Psychiatry - provides consumer-friendly information, definitions, FAQ’s, clinical resources, expert videos and literature <https://www.aacap.org/AACAP/Families_and_Youth/Resource_Centers/Home.aspx>
* Federation of Families for Mental Health - national family-run organization linking more than 120 chapters and state organizations focused on the issues of children and youth with emotional, behavioral, or mental health needs and their families. [https://www.ffcmh.org/](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwi2z-nUt9_eAhVBLKwKHQZNCdgQFjAAegQIBBAD&url=https%3A%2F%2Fwww.ffcmh.org%2F&usg=AOvVaw0Vg-XDhOFGFUZ0Fdtd8oD6)
* Center for Parent Information & Resources - “Hub” of information and products created for the network of Parent Centers serving families of children with disabilities <https://www.parentcenterhub.org/>
* National Institute of Mental Health (NIMH) - The National Institute of Mental Health (NIMH) is the lead federal agency for research on mental disorders. NIMH is one of the 27 Institutes and Centers that make up the National Institutes of Health (NIH), the largest biomedical research agency in the world. NIH is part of the U.S. Department of Health and Human Services (HHS). <https://www.nimh.nih.gov/index.shtml>
* U. S. Department of Education Office of Civil Rights - Office for Civil Rights is to ensure equal access to education and to promote educational excellence throughout the nation through vigorous enforcement of civil rights. <https://www2.ed.gov/about/offices/list/ocr/topics.html?src=rt>

**BREAK (15 Minutes)**

**Part III: Autism Spectrum Disorders (1hour 15 minutes)**

1. **SLIDE 45 – 46 General Description**

Autism spectrum disorder (ASD) is a developmental disorder that affects communication and behavior. Although autism can be diagnosed at any age, it is said to be a “developmental disorder” because symptoms generally appear in the first two years of life.

People with ASD tend to have communication deficits, such as responding inappropriately in conversa­tions, misreading nonverbal interactions, or having difficulty building friendships appropriate to their age. In addition, people with ASD may be overly dependent on routines, highly sensitive to changes in their environment, or intensely focused on inappropriate items. Again, the symptoms of people with ASD will fall on a continuum, with some individuals showing mild symptoms and others having more severe symptoms. This spectrum will allow clinicians to account for the variations in symptoms and behaviors from person to person. <https://www.psychiatry.org/psychiatrists/practice/dsm/educational-resources/dsm-5-fact-sheets>

Autism is known as a “spectrum” disorder because there is wide variation in the type and severity of symptoms people experience. ASD occurs in all ethnic, racial, and economic groups. Although ASD can be a lifelong disorder, treatments and services can improve a person’s symptoms and ability to function. The American Academy of Pediatrics recommends that all children be screened for autism. (NIMH.NIH)

As with ADHD, in viewing the definition, we need to be aware of **normal developmental milestones** in children to determine if behavior is age-appropriate or age-inappropriate. Furthermore, these behaviors must be severe enough to warrant problems in various areas of one's life (e.g., school, home, social, employment, etc...) not just one area.

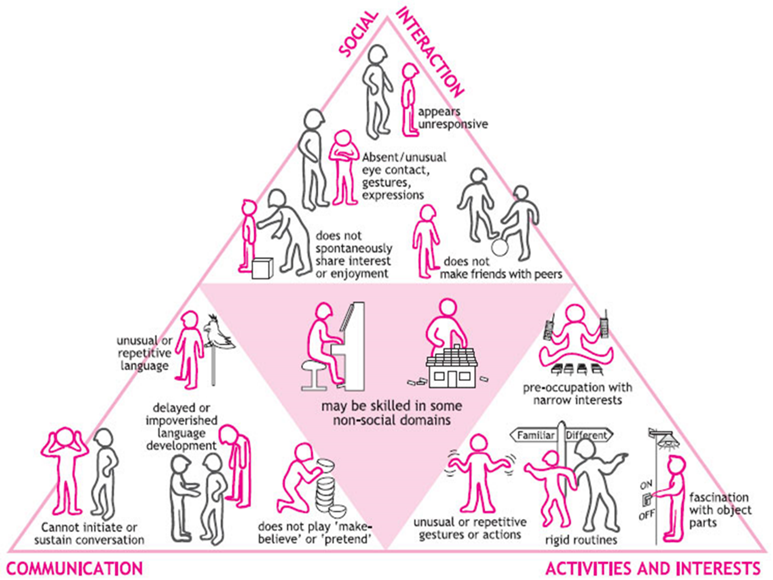
* **Trainer Note** **Refer them back to developmental milestones to determine what is age appropriate versus what is not. Also the importance of children seeing a pediatrician and discussing any concerns they notice** <https://www.cdc.gov/ncbddd/actearly/milestones/index.html>

1. **History**

* **Trainer Note: You do not need to go over all of these. Discuss the general course of ASD. Complete list located page 9 & 10 in participants handouts**
* 1887- Dr. John Langdon Down, the first to describe Down's syndrome, researched mental retardation. His description of "developmental retardation" describes individuals who would be classified as having Autism today.
* 1911- Eugen Bleuler used the word autism to describe a symptom of schizophrenia (<http://psycnet.apa.org/index.cfm?fa=buy.optionToBuy&uid=1952-00161-020> )
* 1927- Eugène Minkowski, a student of Bleuler, further defined autism as the "trouble generator" of schizophrenia (<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1489853/> )
* 1943 Leo Kanner in the United States and in 1944 Hans Asperger in Germany conducted research describing individuals with social, and emotional limitations that also demonstrated withdrawn behavior. Kanner would refer to this condition as Kanner's syndrome- later Early Infantile Autism, while Asperger named the condition Aperger's syndrome. Asperger himself believed that Asperger's syndrome and Early Infantile Autism were distinct disorders.
* 1949- In Leo Kanner's next study, he observed a small sampling of children from well-educated families. Because of the limited sample size and selectiveness of the population used, Kanner made a false statement that children with Autism were more likely to be born into highly intellectual families. During this study, he began calling the mothering style as "cold" resulting in his credit with coining the term "refrigerator mother."
* 1950s- Bruno Bettleheim claimed that Autism was an emotional disorder that developed in some children because of psychological harm brought upon them by their mothers. Bettleheim wrote multiple books and appeared in magazines as well as prime time television discussing the theory.
* 1964- Bernard Rimland, the father of a son with Autism, presented the first solid argument that Autism is not related to the parent child bond, but is a biological condition. He founded the Autism Society of America for parents to have a voice against the Refrigerator Mother Theory. (<http://www.pbs.org/pov/refrigeratormothers/fridge.php> )
* 1971- Eric Schopler and Robert Reichler studied the effects of parent involvement in the treatment of children with Autism. (<http://link.springer.com/article/10.1007%2FBF01537746> )
* 1972- Schopler started the Treatment and Education of Autistic and Related Communication Handicapped Children (TEACCH) program at the University of North Carolina. The purpose of TEACCH is to provide training and other programs for individuals with Autism. (<http://www.teacch.com/> )
* 1977- Susan Folstein and Michael Rutter conducted a study using 21 same-sexed twin pairs where at least one twin showed symptoms of infantile Autism. They concluded that brain injury in the infancy period may lead to Autism on its own or in combination with a genetic predisposition. However, uncertainty remains on what is inherited and how. (<http://onlinelibrary.wiley.com/doi/10.1111/j.1469-7610.1977.tb00443.x/abstract>
* 1980- Autism was added to the Diagnostic and Statistical Manual of Mental Disorders- Third Edition (DSM-III) as "Infantile Autism". This addition made it possible for doctors to accurately diagnose Autism and gave the ability to easily differentiate Autism from Schizophrenia.
* 1987- "Autistic Disorder" replaced "Infantile Autism" in the manual and gave a more expansive explanation of the diagnosis.
* 1994- Both Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS) and Asperger's Syndrome were added to the Diagnostic and Statistical Manual of Mental Disorders- Forth Edition (DSM-IV). The DSM-IV is the main diagnostic reference of mental health professionals in the United States. <http://www.autism-society.org/about-autism/diagnosis/diagnostic-classifications.html>
* 1998 publication of a paper in the British journal The Lancet, which suggested a link between the measles-mumps-rubella (MMR) vaccine and autism. Eventually retracted in 2010. Even before the complete retraction, however, in 2004, ten of the paper's 13 authors cosigned a partial retraction of its main interpretation. (<http://www.pbs.org/wgbh/nova/body/autism-vaccine-myth.html>)
* 2013- After 19 years, the DSM has been updated (DSM-V) based on new literature and clinical experience. Significant changes to the Autism criteria occurred in this update.
  + The diagnosis will now be referred to as Autism Spectrum Disorder (ASD). There will no longer be sub diagnoses such as Asperger syndrome, PDD-NOS, etc. The new criteria will now only have 2 areas to determine diagnosis rather than 3. The new areas are social communication/interaction and restricted and repetitive behavior. <http://aapnews.aappublications.org/content/early/2013/06/04/aapnews.20130604-1>

1. **SLIDE 48 – 51 Core Characteristics / Diagnostic Criteria**

* Social communication / Interaction
  + People with autism have social impairments and often lack the intuition about others that many people take for granted. Social impairments become apparent early in childhood and continue through adulthood. In infancy, children show less attention to social stimuli, smile and look at others less often, and respond less to their own name. Toddlers with Autism have more striking social deviance; for example, they have less eye contact and anticipatory postures and are less likely to use another person's hand or body as a tool. Three- to five-year-old children with Autism are less likely to exhibit social understanding, approach others spontaneously, imitate and respond to emotions, communicate nonverbally, and take turns with others. However, they do form attachments to their primary caregivers. Contrary to common belief, autistic children do not prefer to be alone. Making and maintaining friendships often proves to be difficult for those with autism. For them, the quality of friendships, not the number of friends, predicts how lonely they are. (Burgess AF, Gutstein SE (2007). "Quality of life for people with autism: raising the standard for evaluating successful outcomes". Child Adolesc Ment Health 12 (2): 80–6)
  + About a third to a half of individuals with autism do not develop enough natural speech to meet their daily communication needs. (Noens I, van Berckelaer-Onnes I, Verpoorten R, van Duijn G (2006). "The ComFor: an instrument for the indication of augmentative communication in people with autism and intellectual disability". J Intellect Disabil Res 50 (9): 621–32) Differences in communication may be present from the first year of life, and may include delayed onset of babbling, unusual gestures, diminished responsiveness, and the desynchronization of vocal patterns with the caregiver. In the second and third years, children with autism have less frequent and less diverse babbling, consonants, words, and word combinations; their gestures are less often integrated with words. Autistic children are less likely to make requests or share experiences and are more likely to simply repeat others' words.
* **Trainer Note: Can summarize the core characteristics – Examples of each category Slide 52**
* **SLIDE 51 & 53** - Restricted and Repetitive Behavior
  + There is no one repetitive behavior that is associated with Autism. Some of the repetitive behaviors seen with autism can include:
    - Purposeless movement, such as hand flapping, head rolling, spinning in circles, body rocking or repeating nonsense phrases or sounds.
    - Compulsive behavior such as arranging objects in a certain way, repeatedly flicking a light switch, or repeatedly spinning the wheels on a toy car.
    - Resistance to change in objects; for example, insisting that the furniture not be moved or refusing to be interrupted.
    - Ritualistic behavior involves the performance of daily activities the same way each time, such as an unvarying menu or dressing ritual.
    - Restricted behavior is limited in focus, interest, or activity, such as preoccupation with a single television program.
    - Fixation on an object – clock or on a topic – plants.
    - Self-injury includes movements that injure or can injure the person, such as biting oneself.



* Other symptoms associated with autism
  + Sensory issues - Unusual responses to sensory stimuli are more common and prominent in children with Autism than children without Autism. Sensitivity to light or noise or Insensitivity to pain
  + Atypical eating behavior - Occurs in about three-quarters of children with Autism Spectrum Disorder. Selectivity is the most common problem, although eating rituals, overeating and food refusal can also be present
  + Sleeping problems - Known to be more common in children with developmental disabilities, and there is some evidence that children with Autism Spectrum Disorder are more likely to have even more sleep problems than those with other developmental disabilities. Can be difficulty falling asleep, difficulty staying asleep and waking early in the morning.
* **SLIDE 54 – 57** The Diagnostic and Statistical Manual of Mental Disorders - Fifth Edition (DSM-V) is the existing system for making mental health diagnosis. The revised diagnosis represents a new, more accurate, and medically and scientifically useful way of diagnosing individuals with autism-related disorders.
* **Trainer Note – do not read the diagnostic criteria – summarize for the audience**

1. Persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following, currently or by history (examples are illustrative, not exhaustive):
2. Deficits in social-emotional reciprocity (exchange), ranging, for example, from abnormal social approach and failure of normal back-and-forth conversation; to reduced sharing of interests, emotions, or affect; to failure to initiate or respond to social interactions.
3. Deficits in nonverbal communicative behaviors used for social interaction, ranging, for example, from poorly integrated verbal and nonverbal communication; to abnormalities in eye contact and body language or deficits in understanding and use of gestures; to a total lack of facial expressions and nonverbal communication.
4. Deficits in developing, maintaining, and understanding relationships, ranging, for example, from difficulties adjusting behavior to suit various social contexts; to difficulties in sharing imaginative play or in making friends; to absence of interest in peers.

Specify current severity:

Severity is based on social communication impairments and restricted, repetitive patterns of behavior (see Table 2).

1. Restricted, repetitive patterns of behavior, interests, or activities, as manifested by at least two of the following, currently or by history (examples are illustrative, not exhaustive):
2. Stereotyped or repetitive motor movements, use of objects, or speech (e.g., simple motor stereotypes, lining up toys or flipping objects, echolalia(repetition of words or phrases), idiosyncratic phrases(using standard words in an unusual way).
3. Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior (e.g., extreme distress at small changes, difficulties with transitions, rigid thinking patterns, greeting rituals, need to take same route or eat same food every day).
4. Highly restricted, fixated interests that are abnormal in intensity or focus (e.g., strong attachment to or preoccupation with unusual objects, excessively circumscribed or perseverative interests).
5. Hyper- or hyporeactivity to sensory input or unusual interest in sensory aspects of the environment (e.g., apparent indifference to pain/temperature, adverse response to specific sounds or textures, excessive smelling or touching of objects, visual fascination with lights or movement).

Specify current severity:

Severity is based on social communication impairments and restricted, repetitive patterns of behavior (see Table 2).

C. Symptoms must be present in the early developmental period (but may not become fully manifest until social demands exceed limited capacities or may be masked by learned strategies in later life).

D. Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning.

E. These disturbances are not better explained by intellectual disability (intellectual developmental disorder) or global developmental delay. Intellectual disability and autism spectrum disorder frequently co-occur; to make comorbid diagnoses of autism spectrum disorder and intellectual disability, social communication should be below that expected for general developmental level.

Note: Individuals with a well-established DSM-IV diagnosis of Autistic disorder, Asperger’s disorder, or Pervasive developmental disorder not otherwise specified should be given the diagnosis of autism spectrum disorder. Individuals who have marked deficits in social communication, but whose symptoms do not otherwise meet criteria for autism spectrum disorder, should be evaluated for social (pragmatic) communication disorder.

Specify if:

* With or without accompanying intellectual impairment
* With or without accompanying language impairment
* Associated with a known medical or genetic condition or environmental factor
* Associated with another neurodevelopmental, mental, or behavioral disorder
* With catatonia (immobility)

**Table 2: Severity levels for Autism Spectrum Disorder SLIDE 59**

|  |  |  |
| --- | --- | --- |
| **Severity level** | **Social communication** | **Restricted, repetitive behaviors** |
| Level 3  “Requiring very  substantial support” | Severe deficits in verbal and nonverbal social communication  skills cause severe impairments in functioning, very limited initiation of social interactions, and minimal response to social overtures from others.  For example, a person with few words of intelligible speech who rarely initiates interaction and, when he or she does,  makes unusual approaches to meet needs only and responds to only very direct social approaches. | **Inflexibility of behavior, extreme difficulty coping with change, or other restricted/ repetitive behaviors markedly interfere with**  **functioning in all spheres. Great distress/ difficulty changing focus or action.** |
| **Level 2**  **“Requiring substantial**  **support”** | **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.**  **For example, a person who speaks simple sentences, whose interaction is limited to narrow special interests, and who has markedly odd nonverbal communication.** | **Inflexibility of behavior, difficulty coping with change, or other restricted/ repetitive behaviors appear frequently enough to be obvious to the casual observer and interfere with functioning in a variety of contexts. Distress and/**  **or difficulty changing focus or action.** |
| **Level 1 “Requiring**  **support”** | **Without supports in place, deficits in social communication**  **cause noticeable impairments. Difficulty initiating social**  **interactions, and clear examples of atypical or unsuccessful responses to social overtures of others. May appear to have decreased interest in social interactions.**  **For example, a person who is able to speak in full sentences and engages in communication but whose to-and-from conversation with others fails, and whose attempts to make friends are odd and typically unsuccessful.** | **Inflexibility of behavior causes significant interference with functioning in one or more contexts. Difficulty switching between activities. Problems of organization and planning hamper independence.** |

* **Example**

Billy is a 4 -year-old boy. He was born full term following a normal pregnancy and delivery. His newborn screen and neonatal hearing test were normal. At 18 months, he had tubes placed in both ears due to repeated ear infections. His mother also had concerns at that time that he was not speaking any words. She was told by his doctor, “Let’s wait and see.” A follow-up appointment was scheduled for when he turned 2. At his 2-year well-child check, because of the history of developmental delays, he was referred to early intervention (EI) services. Three months ago, Billy began attending a specialized preschool in the local school district; there, he receives speech, physical, and occupational therapies. This is the third preschool Billy has attended. He was asked to leave his previous schools because of behavioral problems. He would generally not interact with other children appropriately, would make vocal noises and flap his hands repeatedly and lash out and hit other children. Billy’s mother reports that his current preschool teacher recommended that she take him to the pediatrician given concerns about his behavior. Since he began preschool, his teachers have reported that he is extremely hyperactive, does not follow directions, and largely ignores the children in the class. During the visit with the pediatrician, Billy’s mother reports that he has been in good health recently. She reported that all of his milestones (motor, social, verbal) were delayed, particularly his language. She states that he has not shown any regression in development. She adds that Billy has made some progress since he began receiving EI services. He will now use single words like “juice” and “cookie” to make requests. At home, Billy is a “handful,” but he will usually calm down when she turns on his favorite cartoon. She describes him as a sweet and loving boy, but she also shares that he will have prolonged tantrums when denied what he wants and that tantrums will often occur when they are attempting to leave their house. During these tantrums, he will frequently bang his head and bite his hand, which frightens her. For some time now she has been concerned that Billy does not like to play with his similar-aged cousins during family get-togethers, but she thought this was because he was an only child and didn’t like to share. She had been eagerly awaiting his first day of preschool so that he -could spend more time around other children. When asked about family history, Billy’s mother reports that her sister’s 7-year-old son is in special education, but she is not sure what kind of evaluation has been done as her sister “does not like to talk about these kinds of things.” She mentions that it has been hard for the family, and she finds Billy’s preschool reports to be embarrassing and discouraging. She is frustrated and wants the best for Billy.

Adapted from case study (CDC) <https://www.cdc.gov/ncbddd/actearly/autism/curriculum/documents/handouts/mad_handouts_508_final.pdf> Authors: Kimberly Macferran, MD, University of Arkansas for Medical Sciences; Nili Major, MD, Albert Einstein College of Medicine, Children’s Hospital Montefiore: Yale University School of Medicine; Jill J. Fussell, MD, University of Arkansas for Medical Sciences; Pamela High, MD, Warren Alpert Medical School of Brown University

* **Trainer Note: Examples are located in the Participants Handouts – PAGE 11. Have the class read and find the criteria that fits ASD. Trainer can make corrections and provide guidance**
* **SLIDE 61 – 64**  Diagnosing autism spectrum disorder (ASD) can be difficult, since there is no medical test, like a blood test, to diagnose the disorders. Doctors look at the child’s behavior and development to make a diagnosis.
* ASD can sometimes be detected at 18 months or younger. By age 2, a diagnosis by an experienced professional can be considered very reliable. However, many children do not receive a final diagnosis until much older. This delay means that children with an ASD might not get the help they need. <https://www.cdc.gov/ncbddd/autism/screening.html>
* Diagnosing an ASD takes two steps: Developmental Screening and Comprehensive Diagnostic Evaluation.
  + **Developmental screening** is a short test to tell if children are learning basic skills when they should, or if they might have delays. During developmental screening the doctor might ask the parent some questions or talk and play with the child during an exam to see how she learns, speaks, behaves, and moves. A delay in any of these areas could be a sign of a problem.
  + All children should be screened for developmental delays and disabilities during regular well-child doctor visits at:
    - * 9 months
      * 18 months
      * 24 or 30 months
  + If your child’s doctor does not routinely check your child with this type of developmental screening test, ask that it be done.
  + If the doctor sees any signs of a problem, a comprehensive diagnostic evaluation is needed.
* **Comprehensive evaluation** is a thorough review may include looking at the child’s behavior and development and interviewing the parents. It may also include a hearing and vision screening, genetic testing, neurological testing, and other medical testing.
  + In some cases, the primary care doctor might choose to refer the child and family to a specialist for further assessment and diagnosis. Specialists who can do this type of evaluation include:
    - * Developmental Pediatricians (doctors who have special training in child development and children with special needs)
      * Child Neurologists (doctors who work on the brain, spine, and nerves)
      * Child Psychologists or Psychiatrists (doctors who know about the human mind)
  + Selected examples of screening tools for general development and ASD:
* Ages and Stages Questionnaires (ASQ)

This is a general developmental screening tool. Parent-completed questionnaire; series of 19 age-specific questionnaires screening communication, gross motor, fine motor, problem-solving, and personal adaptive skills; results in a pass/fail score for domains.

* Communication and Symbolic Behavior Scales (CSBS)

Standardized tool for screening of communication and symbolic abilities up to the 24-month level; the Infant Toddler Checklist is a 1-page, parent-completed screening tool.

* Parents’ Evaluation of Developmental Status (PEDS)

This is a general developmental screening tool. Parent-interview form; screens for developmental and behavioral problems needing further evaluation; single response form used for all ages; may be useful as a surveillance tool.

* Modified Checklist for Autism in Toddlers (MCHAT)

Parent-completed questionnaire designed to identify children at risk for autism in the general population.

* Screening Tool for Autism in Toddlers and Young Children (STAT)

This is an interactive screening tool designed for children when developmental concerns are suspected. It consists of 12 activities assessing play, communication, and imitation skills and takes 20 minutes to administer.

1. **SLIDE 65 Co-Occurring Disorders**

* Anxiety (Criteria was discussed in section II)
  + Some studies show as high as 40% of youth with ASD have anxiety (
* Depressive Disorders (Criteria was discussed in section II)
  + Rates between 0.9 and 29% of youth with ASD have depression (
* Bipolar Disorder
  + Episodic mood disorder in which there are episodes of mania, hypomania or depression. In children and adolescents, mania can appear as **elation or irritability. This goes beyond occasional situational excitement or irritability to a condition that interferes with functioning in any area.**
  + **Prevalence can range from 0.7 to 1.9%**
* **ADHD**
  + **Symptoms were addressed in part II of the training**
  + **Once thought to not to co occur with Autism Spectrum Disorders, research is showing the opposite is true**
  + **Rated between 21-30% in youth**
* **Oppositional Defiant Disorder (**Criteria was discussed in section II)
  + **Variances on prevalence in youth – could be as much as 25%**
* **Schizophrenia and other psychotic disorders**
  + Schizophrenia is a disorder in which the individual exhibits abnormal behavior, delusions (belief in something that is not real), hallucinations (Seeing, hearing, smelling, feeling or tasting something that is not there), disorganized speech (speaking incoherently or in unrelated ways) and/or motor behavior and flat emotional expression and lack of motivation. Generally schizophrenia does not present until adulthood, however is can present in childhood.
  + Remember in the history section we discussed above that ASD was once thought to be part of schizophrenia
  + Prevalence in youth – 0 to 0.3%

**(Tamera E.Rosen, Carla A. Maazefsky, Roma A. Vasa & Matthew D. Lerner(2018) Co-occurring psychiatric conditions in autism spectrum disorder, International Review of Psychiatry, DOI: 10.1080/09540261.2018.1450229)**

* **Trainer Note: Refer participants back to the discussion of the conditions under ADHD as many of the same conditions were discussed there**

1. **SLIDE 66 Other Associated Issues**

* **Gastrointestinal (GI) Problems**
  + **Chronic Constipation**
  + **Abdominal Pain**
  + **Gastroesophageal Reflux (GERD)**
  + **Bowel Inflamation**
* **Epilepsy**
* **Eating Issues**
  + **Restricted eating habits**
  + **Chronic overeating**
* **Disrupted Sleep**
  + **Difficulty falling asleep**
  + **Difficulty staying asleep**
* **Bullying** 
  + **Being the target of aggression from other children and in turn due to social/emotional impairments do not know how to adequately respond**
* **Friendships**
  + **Because one of the core symptoms is social/emotional problems, children with ASD can have impairment in relationships**
* **Cognitive Impairments and Learning Issues**
  + **Children may test well on some areas but poorly in others**
* **Trainer Note:** Important that individuals with ASD be screened for the associated issues and receive appropriate intervention – Seeing a medical provider (Pediatrician for children and adolescents) and potentially a Psychiatrist, Psychologist, Counselor or Clinical Social Worker

1. **SLIDE 67 – 68 Causes**

* **To date, scientists still do not know what “causes” autism**
* **Possible causes or contributors are:**
  + **Genes**
    - **It is thought that more than 100 genes on different chromosomes may be a contributor to ASD. Evidence means that different genetic mutations likely play varying roles in ASD. Certain mutations or combinations of mutations might; cause specific symptoms of ASD, control how mild or severe symptoms present, increase susceptibility to autism**
  + **Interactions between genes and environment**
    - **Back to looking at how someone may be more susceptible to ASD due to genetic mutations, then certain situations might cause autism in that person. Examples can include; an infection or contact with chemicals in the environment. This is not a certainty as someone with the same susceptibility could be exposed to the same environmental situation and not develop ASD.**
  + **Other biological causes**
    - **Other areas being studied include; problems with brain connections, problems with growth or overgrowth in certain areas of the brain, problems with metabolism (body’s energy producing system) and problems with the body’s immune system (protects the body against infections) (What Causes Autism retrieved from:** [www.nichd.nih.gov/health/topics/austism/conditioninfo/causes](http://www.nichd.nih.gov/health/topics/austism/conditioninfo/causes)**)**
  + **What doesn’t cause ASD**
    - **Vaccines**
      * **The study that first linked vaccines to causing Autism has been disproven.**
        + **American Academy of Pediatrics has a comprehensive list of research that supports vaccines not causing ASD (**[www.healthychildren.org/English/safety-prevention/immunizations/Pages/Vaccine-Studies-Examine-the-Evidence.aspx](http://www.healthychildren.org/English/safety-prevention/immunizations/Pages/Vaccine-Studies-Examine-the-Evidence.aspx) **)**
    - **Parenting styles**
      * **This was once thought to be a contributor as the “Refrigerator Mom” theory**
* **Trainer Note:** Important to point out that the study that was associated with the misinformation has been disproven, but is still quoted. Regarding parenting styles – the term “Refrigerator Mom” was coined by Leo Kanner. Even though he thought the children's inability to relate to others was probably innate, he also stressed what he observed to be the cold, intellectual nature of their parents, especially their mothers.

1. **SLIDE 69 Other conditions that can resemble ASD**

* **Developmental Delays**
  + **This is when children do not meet milestones that are expected for their age**
    - **Language and Speech**
    - **Fine and Gross Motor Skills**
    - **Social Skills**
* **Hearing Problems**
* **Obsessive Compulsive Disorder**
* **Avoidant Personality Disorder**
* **Reactive Attachment Disorder**
* **Social Communication Disorder**
* **Lead Poisoning**
* **Genetic Disorders**
  + **Tuberous Sclerosis**
  + **Fragile X**

1. **SLIDE 70 – 74 Treatment of ASD**

* **Early Intervention Services**
  + **Have been shown to greatly improve a child’s development**
  + **Services like Birth to Three provide therapy services to help a child with gross motor skills (walking), fine motor skills (grasping), language (talking) and social skills**
  + **Where to start: Talk with your child’s doctor as soon as possible if you suspect ASD or any other problems with development**
    - **Even if your child is not diagnosed with ASD they may still be eligible for early intervention services. The Individuals with Disabilities Education Act (IDEA) guidelines state that children under the age of 3(36 months) who are at risk of having developmental delays may be eligible for services.** <https://sites.ed.gov/idea>
    - **You can learn more about early intervention services at** <https://parentcenterhub.org/ei-overview>
* **Types of Treatments**
  + **Behavior and Communication Approaches**
    - **The most effective of these approaches are those that provide structure, direction and organization for the child in addition to family participation.**
      * **Applied Behavioral Analysis(ABA) – Encourages positive and discourages negative behaviors in order to improve skills. Progress is tracked and measured. Types include:**
        + **Discrete Trial Training (DTT)**
        + **Uses a series of trials to teach each step of a desired behavior or response. Lessons are broke down into their simplest parts and positive reinforcement is used to reward correct answers and behavior and ignoring is used for incorrect answers and behaviors.**
      * **Early Intensive Behavioral Intervention (EIBI)**
        + **Type of ABA for young children- usually under 5**
      * **Pivotal Response Training (PRT)**
        + **Aims to increase a child’s motivation to learn, monitor his/her own behavior and initiate communication with others**
        + **Verbal Behavior Intervention (VBI)**
        + **Type of ABA that focuses on teaching verbal skills**
    - **Other therapies include:**
      * + **Developmental, Individual Differences, Relationship-Based Approach (DIR(also called “Floortime”))**
        + **Focuses on emotional and relational development (feelings, relationship with caregivers) as well as focusing on how the child deals with sights, sounds and smells**
        + **Treatment and Education of Autistic and related Communication-handicapped Children (TEACCH)**
        + **Uses visual cues (ie: picture cards) to teach skills such as dressing skills by breaking down into smaller steps**
        + **Occupational Therapy**
        + **Teaching of skills such as dressing, eating, bathing and relating to others**
        + **Sensory Integration Therapy**
        + **Assists the individual in dealing with sensory information like sights, sounds, smells or touch**
        + **Speech Therapy**
        + **Assists with improving communication skills – some with verbal skills and others with gestures or picture boards**
        + **The Picture Exchange Communication System (PECS)**
        + **Uses picture symbols to teach communication skills. The person is taught to use picture symbols to ask and answer questions and have a conversation**
* **Trainer Note: For the intervention slides 70 – 74, parents / caregivers can research these and discuss with treatment providers**
  + **SLIDE 75 Dietary Approaches**
    - **Some dietary approaches have been developed by reliable therapists, but many others do not have the scientific support needed for widespread recommendation. An unproven treatment might help one child but not another. It is best to consult with your child’s doctor before making any changes. Also it can be helpful to talk to a Nutritionist. Many call for changes in diet such as:**
    - **Removing certain types of foods**
    - **Using vitamins and mineral supplements**
  + **Medications**
    - **There are no medications that can “cure” ASD or even treat the main symptoms. There are however medications that can help some people with the related symptoms such as excessive energy, irritability, inability to focus, sleep, depression or seizures to name a few.**
  + **Complementary and Alternative Approaches(CAM)**

**These can be treatment that are outside of what a pediatrician might recommend. These treatments are very controversial and in some cases dangerous. Before starting any CAM research it carefully and talk to your child’s doctor. Can be researched at the National Center for Complementary and Alternative Medicine site at:** <https://nccih.nih.gov/health/integrative-health#1>

**(CDC** <https://cdc.gov/ncbddd/autism/treatment.html> **)**

* **Trainer Note: Emphasize that each of these needs to be discussed with their medical provider. Additionally, make sure to point out that Complementary and Alternative Approaches (CAM) were added as they were mentioned in the research but these are controversial and can be dangerous and should not be started unless thoroughly researched and approved my their medical provider.**

1. **Resources**

* **Trainer Note – all of the resources are listed in the participants handout – pages 13-15. All you need to do is direct them to the section.**
* **Resources**
  + **Treatment Resources**
  + **National Institute on Deafness and Other Communication Disorders – website to help individuals with ASD who have communication challenges** <https://www.nidcd.nih.gov/health/autism-spectrum-disorder-communication-problems-children>
  + **National Institute of Dental and Craniofacial Research – website to help health professionals with the oral health care needs of patients with an ASD** <https://www.nidcr.nih.gov/health-info/developmental-disabilities/practical-oral-care-people-autism>
  + **ClinicalTrials.gov - lists federally funded clinical trials that are looking for participants. Once you are on the website – search “autism” to identify clinical trials.** <https://clinicaltrials.gov>
    - **Autism Treatment Network – seeks to create standards of medical treatment that are made available to physicians, researchers, parents, policy makers and any ones else who is interested in improving care to individuals with ASD. ATN is also developing a shared national medical database to record the results of treatment and studies.** <https://autismspeaks.org/science-blog>
    - **Centers for Disease Control – site that offers information on many areas of health and research.** <https://www.cdc.gov>
* **Additional General Resources**
* **National Center on Birth Defects and Developmental Disabilities (NCBDD) – works to advance the health and well-being of “our nations most vulnerable populations”.** <https://www.cdc.gov/ncbdd/index.html>
* **Autism Speaks – Information and resources for anyone living with or working with ASD.** <https://www.autismspeaks.org>
* **National Autism Center – nonprofit organization dedicated to disseminating evidence-based information about the treatment of ASD, promoting best practices and offering reliable resources for families, practitioners and communities.** <https://www.nationalautismcenter.org>
* **American Academy of Pediatrics – Professional organization of pediatricians dedicated to the physical, mental and social health and well-being of infants, children, adolescents and young adults. Provides information on ASD and other topics to parents and professionals** <https://www.aap.org>
* **HealthyChildren.org – AAP parenting website backed by pediatricians. Site includes everything from general health guidance to information on specific issues and conditions.** <https://www.healthychildren.org>
* **AAP Autism Initiatives – AAP Council on Children with Disabilities(COCWD) dedicated to the optimal care of and development of children with disabilities and to the support of their families within a medical home.** <https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Pages/autism-initiatives.aspx>
* **Advancing Futures for Adults with Autism – national consortium of working together, led by the vision of individuals with autism and their families, to promote a collaborative spirit and develop both public and private sector support that improve the lives of adults living with autism.** <https://www.afaa-us.org>
* **American Academy of Child & Adolescent Psychiatry: Autism Resource Center – provides consumer-friendly information, definitions, FAQ’s, clinical resources, expert videos and literature relevant to autism.** <https://www.aacap.org/families_and_youth/resource_center/Autism_Resource_Center/Home.aspx>
* **American Occupational Therapy Association – provides tip sheets on ASD and Occupational Therapy.** <https://www.aota.org/About-Occupational-Therapy/Patients-Clients/ChildrenAndYouth>
* **American Speech –Language-Hearing Association – information for families on ASD.** <https://www.asha.org/public/speech/disorders/Autism/> **and for professionals at** <https://www.asha.org/Practice-Portal/Clinical-Topics/Autism/>
* **Association for Science in Autism Treatment – provides research summaries of the full array of autism treatments for families and professionals to make informed choices before considering treatment options. Specific resources for journalists, medical providers and parents of newly diagnosed children are available.** <https://asatonline.org>
* **Autism Asperger’s Digest – created to meet the needs of teachers, therapists and family members who face the challenge of autism.** <https://autismdigest.com>
* **Autism Navigator – has extensive video glossary with clips of toddlers at 18 to 24 months of age showing behaviors that are hallmarks of ASD, alongside video clips of typically developing toddlers in similar settings. Videos are meant to assist parents and health care providers distinguish between sometimes subtle behavioral differences and identify children who may benefit from ASD screening. Site also offers online training to support families and professionals.** <https://autismnavigator.com>
* **Autism NOW: The National Autism Resource and information Center – serves as a central point of resources and information for individuals with ASD and other developmental disabilities, their families.** <https://autismnow.org>
* **U. S. Department of Education Office of Civil Rights - Office for Civil Rights is to ensure equal access to education and to promote educational excellence throughout the nation through vigorous enforcement of civil rights.** <https://www2.ed.gov/about/offices/list/ocr/topics.html?src=rt>

**Part IV Closing (15 Minutes)**

* **Trainer Note – Ask if there are any final questions. Thank the participants for attending the training and have them fill out the evaluations. Pass out certificates.**