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Understanding Autism Spectrum Disorders

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1. Three Characteristic Features of Autism Spectrum Disorders

In simple language, there are three major features that are involved in the diagnosis of autism and autism spectrum disorders, including pervasive developmental disorders (PDD) and Asperger Syndrome. These features are usually apparent before age four. They are:

- differences in the quality and style of both verbal and non verbal communication such as difficulty interpreting facial expression and gestures, difficulty with eye contact and interpersonal communication, pedantic and memorized language use, repetition of previous conversational events, echolalia, talking out loud to self-regulate, problems in answering conceptual questions, literal mindedness, problems with tone and volume, difficulties in word and phrase retrieval
- differences in the quality and style of social interactions such as difficulty in joining in games or conversations, less ability to get attention in ordinary ways, conversational difficulties such as shifting topic and asking questions of others, lack of or delayed responding to others, apparent lack of social interest in others, need to learn social rules by systematic instruction instead of spontaneously, limited ability to surmise the intentions of others, limited ability to predict the behavior of others.
- restricted, repetitive and unusual patterns of interests, behavior and activity limited interests, repetitive topics and activities, difficulty with focusing on items or objects that are not part of the restricted repertoire, atypical ways of doing things, unusual reactions to people, objects and events, need for certain objects to be present or available, inability to "share" certain objects or areas, sensory integration issues

2. People with an autism spectrum disorder may have issues in the following areas that need to be addressed programmatically:

Executive function deficit: problems in planning tasks and carrying out motor activities: causes them to look inattentive or non-compliant, to not follow through with requests to have difficulty visually tracking and following directions, and difficulty in predicting the future causing him to depend on routines and familiar actions.

To support:

- Create routines to memorize
- Use visual/spatial cues
- Use task lists
- Use individualized daily schedule lists
- Use calendars
- Use physical prompts
- Provide peer support
- Avoid verbal prompts that can lead to verbal prompt dependence
- Teach tasks the same way every time following a written task list

Central coherence deficit: problems figuring out and making sense of new or changed situations. Problems knowing what it is important to focus attention on. Needs more time to process and understand any environmental changes. Causes them to pay attention to the wrong stimuli and to depend on routines. May cause them to perform inconsistently from day to day, place to place, hour to hour, or person to person.

To support:

- Allow extra time to process
- Decrease input to allow processing
- Pre-teach new environments
- Teach to assess and choose the best location from which he can participate
- Introduce change in increments with visual cues
- Let them SEE changes in the environment happen when possible

Theory of mind or issues in perspective-taking: problems understanding that other people have different thoughts and perspectives. Causes them to appear unconcerned or disinterested in the perspectives and thoughts of others. Causes own perspective to often be the only one he can consider. Causes approaches to others in a naive way. May cause "polarized" thinking, a kind of "black and white" approach wherein things, people and events are great or awful, good or bad, right or wrong, etc.

To support:

- Relate the feelings of others to the individual's experiences
- Create experience books about the child or adult's personal experiences
- Teach what to do and say (instead of what not to do and not to say)
- Do not chastise, blame or embarrass
- Speak on behalf of the individual with ASD to his peers and to adults
- Explain his disability and learning style to peers and to the adults in the environment

Delay in Processing: problems quickly processing input and making a quick and reasonable response. Delay in processing is a documented feature in ASD and can vary from 2 seconds to hours. It accounts for most "non-compliance" and can be misinterpreted as stubbornness. People in the autism spectrum have difficulty trying to process new information while working to process what is already there.

To support:

- Use "Structured waiting". This is the skill of learning to stand still and wait without adding any additional input while giving the person time to process. (It is a great skill to learn and use with everyone!)
- Present material in a written or concrete form that the person can use no matter how long it takes to process
- Give the individual the opportunity to "think about it" and respond later
- Try not to demand immediate or instant responses
- Don't expect the person to attend to two voices at the same time

Sensory Integration Needs: People with ASD may display needs in the areas of sensory integration, that is, the ability of the brain to take in and organize sensory input and provide adaptive responses and regulate the state of mental alertness. Three areas of interest in sensory integration are proprioception (keeping track of his body), vestibular input (balance controlled in the inner ear system) and tactile input, (input through the skin, and muscles).

To Support:

- Gain more information about sensory processing by having a comprehensive sensory integration assessment performed by a licensed individual who is trained in this type of assessment process
- Don't expect the person to attend to two voices at the same time
- Recognize sensory seeking or sensory avoiding behavior and accommodate
- Do not be quick to judge "why" an individual is doing something. Always look for underlying sensory aspects to behavior

3. Learning Challenges for Many People with ASD

People with ASD may have difficulty learning new material when the teaching depends on them being able to:

- Use imagination (effects planning, social skills and emotions) in ways other than those learned from books and movies
- Plan and carry out plans
- Use more than very limited cause/effect understanding
- Use social “intuition”
- Use interpretation, inference
- Quickly take the perspective of another
- Respond quickly: they need a longer processing and response time
- Manage sensory responses; may be prone to sensory overload or sensory confusion
- Generalize. Generalization is not automatic. They may need to be re-taught skills in new environments or with new people.

4. Learning Strengths for Many People with ASD

People with ASD may find it easier to learn new material and skills if the following elements can be made part of the process of teaching and learning:

- Visual
- Spatial
- Concrete
- Physical
- Motor memory
- Logical
- Sequential
- Mathematical
- Numerical
- Rote learning
- Rote memory