

An Introduction to Autism Spectrum Disorders

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CORE ISSUES to Understanding ASD

- **ASD is an “umbrella” term used to describe individuals that exhibit some variation of a core set of features.**
- **Characteristics identified under the global term of Pervasive Developmental Disorder (PDD)**

Pervasive Developmental Disorders (PDD)

- **Autism**
- **Pervasive Developmental Disorder Not Otherwise Specified**
- **Asperger’s Syndrome**
- **Rett’s Syndrome**
- **Childhood Disintegrative Disorder**
- ***Articulated in Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition-Text Revised.***

Autism is referred to as a *spectrum disorder* to signify similarities among a group of individuals who share a common diagnosis, but who differ in how core characteristics are manifested, and in the number and severity of specific characteristics.

Spectrum Disorder

- **Because of broad variability in:**
 - **Measured Cognitive Ability**
 - **Social-Emotional Development**
 - **Expressive and Receptive Communication**
 - **Motor Skills: Both Fine and Gross**
 - **Sensory Processing**

Incidence

- **The Centers for Disease Control are now stating that the incidence of autism spectrum disorders is 1 in 150.**
- **Look at your state’s child count data as an indicator of the prevalence in your state.**

Example: Ohio Department of Education	
Students ages 5 to 21 identified with ASD	▪ 1992-93: 22
(Does not include preschoolers)	▪ 2000-01: 2,217
	▪ 2004: 6,308

Current increase has led to recommendation that screening for autism spectrum disorders be routinely done by pediatricians.

- Causes of Autism Spectrum Disorders**
- **No Specific Known Cause**
 - **Neurobiological Disorder**
 - **Genetic Component**
 - **Perhaps Multiple Causal Factors**
 - **Subtypes Based on Predicted Time of Onset**

- Autism Spectrum Disorders (ASD)**
- “Neurobehavioral” Syndrome**
- **A Developmental Disorder**
 - Not a mental illness/emotional disturbance
 - Not a severe behavioral disorder
 - **Dysfunction of CNS**
 - Differences noted in several areas of the brain
 - Process information differently
 - Confusion, overload, misinterpretation

- Autism and Genetics**
- **Higher likelihood in families with history of ASD**
 - **Suspected Autism related Genes**
 - 10-20 interacting genes
 - **Genes that possibly affect:**
 - Neurotransmitter transport
 - immune system
 - viral infections
 - development of the brain/ neurological system

- Why?**
- **Environmental Trigger**
 - External environmental toxins
 - Internal environmental toxins
 - Diet
 - Studies do NOT support
 - Immunizations (Thimerosal)
 - Studies do NOT support
- However.....

Diagnosis/Assessment of Autism Spectrum Disorders

- **No Medical Test Can Determine Autism**
- **Medical Tests to Rule Out Other Issues (e.g., brain lesions, seizures, genetic disorders, allergies, digestive system difficulties)**
- **Multiple Disciplines Should Be Involved (e.g., speech clinician, occupational therapist, audiologists, educators, psychologists, family members, physical therapists etc.)**

Symptom Onset

- **Onset of the core symptoms must occur prior to the age of three years**
- **Diagnosis may occur well after the onset, however the developmental history must identify the occurrence of the symptoms at this young age.**



Diagnosis

- **When a child has fewer characteristics or additional disabilities, he or she may be older before the patterns are clear enough for an accurate diagnosis.**

Diagnosis

- **A broader and more general diagnosis of an autism spectrum disorder is more reliable than trying to diagnose an individual with a specific PDD.**

Diagnosis/Assessment of Autism Spectrum Disorders

- **Great Deal of Subjectivity/Not An Exact Science**
- **Checklists Provide One Mechanism**
- **Should Also Include A Developmental History**
- **Natural Observation Important**

Standardized Testing

- **Standardized tests are typically not a good indicator of current performance or a sound predictor of future potential**

Uneven Skill Development

- **Individuals may present with uneven skill development**
 - **Example: some may have excellent math ability while struggling in language arts**
- **Remember:**
 - **While, a weakness may hide a child's ability in another area...**
 - **Areas of strength can also mask areas of challenge that require support and intervention!**

Standardized Testing

- **Individuals with autism spectrum disorders typically do not have the verbal ability or social knowledge needed to be successful on standardized tests.**

Diagnosis/Assessment of Autism Spectrum Disorders

- **While the diagnosis does not provide a recipe for programming, report should highlight areas of strength and difficulty that can be logically linked to programming.**
- **Some Are Dually Diagnosed**

Dual Diagnosis

- **Cognitive Disability/Mental Retardation**
- **Learning Disability**
- **ADHD**
- **Bi-Polar**
- **Obsessive-Compulsive**
- **Anxiety Disorders**
- **Tourette's Syndrome**
- **Fragile X**
- **Down Syndrome**
- **Cerebral Palsy**
- **Visual Impairments**
- **Hearing Impairments**
- **Epilepsy**

Understanding the Autism Spectrum

It is critical to have an understanding of the characteristics associated with autism spectrum disorders in order to better relate to individuals and understand their perspective of the world.

Characteristics of the Learner with Autism Spectrum Disorders

- **Social Difficulties**
- **Expressive and Receptive Communication Difficulties**
- **Restricted Repertoire**
- **Additional Considerations**

Social Interaction/ Socialization

Appears <----->Overly Active
Withdrawn Yet
atypical

Social difficulties are significant as a **QUALITATIVE** Issue (not necessarily quantity.....)



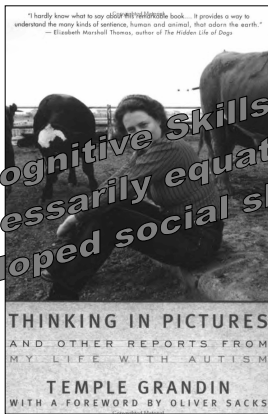
Qualitative Impairment in Socialization

- Social abilities may range from:
 - A social loner to
 - Acquiring social skills that are stilted and monotonous
- Lack of social understanding, or the ability to correctly interpret social messages, is the core deficit



Thinking In Pictures: And Other Reports From My Life with Autism by Temple Grandin

Temple Grandin, Ph.D. is a gifted animal scientist who has designed one of all the livestock handling facilities in the United States. In this unique book, Grandin writes from the dual perspectives of a scientist and a person with autism.



High Cognitive Skills do not necessarily equate to well developed social skills

Communication

Non-Verbal<-----> Verbal

- ❖ Communication Difficulties be viewed as a **QUALITATIVE** Impairment



Qualitative Impairment in Communication

- Impairments in communication range from:
 - An inability to effectively communicate
 - To an apparent lack of desire to communicate
 - To excessive speech with poor conversation skills
- Impairment in pragmatic abilities.
 - Examples: poor eye contact, unusual voice modulation, and difficulty in the use and understanding of gestures and other nonverbal body/ facial expressions

Receptive & Expressive Communication Challenges

- May have difficulty with processing verbal information
 - May retain visual information more easily
- Even the student with verbal ability may have difficulty responding verbally to questions
 - An alternate means of expression may be needed
- Students may use a limited set of communicative responses
 - May use standard sets of words or phrases to communicate, although they may not seem to fit the situation.



Communication

- **Social Communication** may be the major area of difficulty in individuals at the upper end of the autism spectrum.
 - Spontaneous language (vs. rote phrases) is difficult
 - Difficult understanding non-verbal communication
 - Expect uneven expressive and receptive communication skills

Restrictive, Repetitive Nature

Simple & Obvious <-----> Complex or Subtle

Example:

Stereotyped Motor Movements



Complex and Intense Routines



Topical Interest

Restricted Interests & Repetitive, Stereotypic Behaviors

- Examples of behaviors may range from:
 - Repetitive motor actions such as opening and closing doors, pacing, finger flicking, spinning and lining-up objects;
 - To fascinations in mechanical objects; and
 - To cognitive interests and topical themes. These children are often described as "little professors".

Restricted Interests & Repetitive, Stereotypic Behaviors

- Need for Predictability and Routine.
 - Resistance to change in routine
- Play is often rigid and repetitive.
 - Imagination and symbolic play is limited



Students with autism spectrum disorders are often excluded due to the presence of challenging behaviors.

Behavioral Characteristics

- Obsessions/Rituals
- Compulsive Mannerisms
- Self-Stimulatory Behavior
- Refusal
- Withdrawal
- Self-Injury/Abuse
- Aggression