

Asperger's Syndrome & Nonverbal Learning Disabilities

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Overview of Session

- Understanding AS and NLD
- Similarities and Differences
- Challenges and Strengths
- Implications for Instruction
- Strategies for Communication, Social Skills & Behaviour

Terminology

- ASD = Autism Spectrum Disorder
- AS = Asperger's Syndrome
- NVLD = Non-Verbal Learning Disability
- NLD = Non-Verbal Learning Disability
- DCD = Developmental Coordination Disorder
- ToFM = Theory of Mind

Things People Say About These Kids

- He's very verbal
- She's smart
- He'll outgrow it
- If she'd just apply herself
- He'll be better once he learns to organize himself
- She's just clumsy
- She's a loner
- He doesn't know when to stop

What the *Professionals* Say

- It's immaturity
- He's been overprotected
- It's Attention Deficit Disorder
- He just likes to do things his own way
- He's bored with the regular way of doing things
- He has to learn to do it this way
- He needs to be quiet and pay attention

It Could be Interpreted As...

- Lack of respect
 - Talking over others
 - Dominating the conversation
 - using inappropriate tone of voice with adults
 - Talking back to adults
 - Not understanding personal space
 - Disregarding facial signs of displeasure

It Could Be Interpreted As...

- Defiance

- Knocking things off desk
- Arriving late
- Saying she got lost coming in from recess
- Saying she doesn't know how to get to the principal's office
- Talking back
- Talking out loud
- Not completing assignments or turning them in

Commonalities

- Confuses adults because this seems to be a bright child who just “doesn’t get it”
- Weaknesses in adaptive functioning
- Poor organizational skills
- Dislike of novel situations and an insistence on things being the same
- May show obsessive tendencies
- Difficulties generalizing skills
- Pay close attention to details but be unable to see the forest for the trees

In Both NLD and AS...

- The child presents as highly verbal
- His vocabulary may be impressive for his age
- He seems to chatter incessantly
- Talks to himself
- Talks aloud in class when others are silent
- Is unaware that his constant talk annoys others
- Does not seem aware that he even is talking out loud

In Both NLD and AS...

- May appear clumsy and uncoordinated
 - may have poor balance
 - fine motor difficulties especially when handwriting
 - Writing – poor quality, slow & laborious
- Have difficulty relating to peers
- Socialization may not be age-appropriate
- May make inappropriate social remarks
- Seem to ignore facial expressions

Both have Trouble with Non-Verbal Social Cues but for Different Reasons

- NLD – due to weak visual skills
- AS – may be strong visually but have trouble interpreting what they see
- AS – Theory of Mind (TofM) interferes with ease of understanding others

In School, both NLS & AS...

- May have poor handwriting
- Slow to finish written assignments
- Difficulty during unstructured times such as recess
- Dislike gym
- Show strong verbal skills
- Often good readers in early grades but have trouble with comprehension later

Social Difficulties in NLD & AS

- Don't pick up on the nonverbal signs when someone is showing pleasure/displeasure
- Poor understanding of personal space
- Miss the nuances of communication because they take a literal interpretation of what's said
- Sarcasm, innuendos, jokes
- Idioms
- What's "in" for clothing, interests
- Can appear naïve or young for their age

NLD Strengths/Challenges

- Good auditory attention
- Good auditory memory
- Strong verbal skills
- IQ in average to above average range
- Weak visual/spatial organ.
- Poor visual memory
- Difficulty processing visual information
- May seem to get lost in areas that should be familiar such as the school and playground
- Difficulty responding appropriately in social situations
- Gross motor & balance – difficulties in gym, with playground equipment, sports, lining up, may fall out of chair
- Fine motor – handwriting & organizing self on the page

Why Diagnose

- Decreased self-esteem
- Poorer academic performance
- Failure to live up to potential
- Learned helplessness
- Give up trying
- Withdrawal
- Inability to function in a group
- Depression

Asperger's vs. NLD

- Restricted interests
- More sensory issues
- Strong visual/spatial skills
- Stronger visual memory
- Verbal explanations may cause more confusion than clarification
- Listed in DSM-IV
- Incidence is 4 times higher in males
- Helped with verbal coaching
- Weak visual/spatial skills
- Poor visual memory
- Not a distinct entity in the DSM-IV
- Incidence is same in males and females

AS Characteristics

- Qualitative impairments in social interaction
- Qualitative impairments in communication
- Repetitive and stereotyped patterns of behaviour, interests and activities
- Impairment in motor skills
- Symptoms may fluctuate, abate, change and some may even disappear but once autistic, always autistic

Asperger's Disorder vs. Autism - Differential Diagnosis

- No significant delay in language, cognitive skills, or in self-help skills
- Causes significant impairment in social, occupational functioning and other areas
- Tend to display less bizarre behaviours; tend to have more subtle difficulties
- Motor skills are relatively weak; clumsy

Possible Causes of Asperger's & Autism

- Genetic etiology
- Genetic vulnerability for other external factors
- Neuro-anatomical abnormalities in the limbic system and cerebellum

Comorbidity in Asperger's

- ADHD symptoms
- Obsessive behaviours
- Anxiety or fears
- Mood disorders
- Stereotyped mannerisms
- Sleep problems
- Tics
- Seizure disorders

The Challenges and Strengths of Asperger's

Autism & Asperger's are neurobiological disorders. Teachers and parents of these children wonder, How far can they go? That depends on their cognitive and language abilities, the training and compensatory tools they receive to help them deal with their areas of weakness.

“We have seen many individuals whose natural talents are wasted due to their untreated social disability and other weaknesses (e.g. inability to manage the practical aspects of independent living.” Klin, Volkmar & Sparrow. *Asperger Syndrome* (2002), p. 8.

Communication

- May be difficulties with understanding spoken language
- Auditory processing
- Perseveration
- Pragmatics, reciprocity
- Pitch, rhythm, intonation
- Affect
- Idioms, jokes, sarcasm,

Communication Breakdown: Receptive Deficits

- Poor understanding of verbal cues
- Poor processing of auditory input
- Comprehension is context-specific
- Incorrect interpretations
- Poor attending skills + missed info
- Miss sarcasm, innuendo

Communication Breakdown: Expressive Deficits

- Lack effective nonverbal cues
- Unusual vocal quality
- Repetitive or idiosyncratic language
- Restricted vocabulary
- Perseverate on topics/words

Communication Breakdown: Pragmatic Deficits

- Restricted speech functions
- Perseverate on topic
- Low rate of initiation
- Rigid pattern of interaction
- Poor repair of breakdowns
- Can't interpret behaviour

Unusual Interests/Behaviours

- Repetitive motivations and activities
- Self-stimulation
- Perseveration
- “Abnormalities in the amygdala may result in fearlessness, compulsive examination of objects and impaired ability to attach meaning to events based on past experience.” *Advocate*, 2nd ed., 2002 www.autism-society.org

Attentional Difficulties

- Central Coherence/Executive Functioning
- Interference from sensory input
- Perseveration
- Transitions

Attentional Difficulties (cont'd)

- Generalizing from past learnings
- Intense concentration
- Pace
- Medications

Unusual Sensory Responses

- Tactile
- Auditory
- Visual
- Gustatory
- Olfactory
- Vestibular
- Proprioception

Anxiety

Manifestations

- Decreased attention
- Shut downs
- Increased self-stimulation
- Increased perseveration
- Meltdowns

Possible Reasons

- Sensory overload
- Fear
- Fatigue
- New situation
- Missed social cues
- Illness
- Change in routine

Social Interaction

- Effects of language on socialization
- Lack of prevarication
- Sensory responses
- Scripting and social stories
- Predictability and routines
- Triad of Social Impairments:
 - **Theory of Mind**
 - **Central Coherence**
 - **Executive Functioning**

Social Strengths

- Honest to a fault
- Speak their minds
- Loyal
- Overlook hidden innuendos
- May not respond in kind to sarcasm
- Avoid social trivialities
- Take people at face value
- Pursue topics that interest them
- Willing to share their area of interest
- Like learning facts
- Enjoy humour

Structure

- Make life predictable
- Teach patterns and routine
- Form positive habits
- Schedules
- Scripts and social stories
- Teach through visual strengths; use less auditory explanations

Change

- Now that you've taught that life is predictable and follows a pattern, throw in change
- Use social story to prepare for change
- Describe how the change will look, sound, feel and last
- Show that change can be fun

Transitions

- Between subjects
- Between classrooms
 - Between breaks
 - Between schools
- Elementary to high school
 - After grade 12
 - New home
 - New job

Self-Management

- Physical – hygiene
- Organizational skills – time and belongings
- Life skills
- Don't assume student will intuitively pick up a skill, understand the reasons behind it or automatically transfer that skill to another situation

Help, It's Not Working!

You Might Be...

- Failing to determine true function
- Trying to change too much at once
- Reacting inconsistently
- Needing more help
- Having unrealistic expectations
- Forgetting no one is perfect