Recognizing and Supporting Students with Nonverbal Learning Disorders Part 1 Overview and Motor & Sensory Aspects Marion Marshall, M.S., BCET, FAET Dianne Matthaei, M.Ed., ET/P Rebecca Schatz, M.S., O.T.R./L

NVLD is.....

- Nonverbal Learning Disability (NLD = NVLD)
- Not about students who are non-verbal
- Not well understood
- Often misdiagnosed
- Often co-mingled with Asperger Syndrome
- Global in nature
- Presenting issues appear different at developmental stages and/or grade levels
- Seen in both males and females

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Frequency of Occurrence?

Of those diagnosed with LD, NVLD = 5.15% of that

NVLD is a specific neurological syndrome with identified strengths and deficits.

Nonverbal learning disabilities (NVLD) impact one's ability to manipulate, integrate and learn from **nonverbal** information. (source: smartkidswithld.org)

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Assets 1. Early speech 2. Strong spoken vocabulary development 3. Good rote memory skills 4. Early acquisition of reading skills 5. Strong spelling skills 6. Very strong verbal expression 7. Strong auditory memory skills Difficulties 1. Motoric (gross & fine motor): balance; coordination; graphomotor 2. Visual-Spatial: faulty visual perceptions; limited visual recall; problems with spatial relations; difficulties with part-whole relationships 3. Social Perceptions (if 70 % of communication is non-verbal...): lack of ability in understanding nonverbal communication; difficulty with transitions, novel situations, social interactions & social judgment 4. Executive Functioning (neurologically based): decision making; planning; initiation; saliency determination; assigning priority; sequencing; emotional regulation; problem solving; planning; establishing goals; self-monitoring 5. Sensory: sensitivity in any of the sensory modes- visual, auditory, tactile, taste (or olfactory) Source: Understanding Nonverbal Learning Disability (NVLD) youtube.com created in 2014, book's editors are speaking; over 8,000 views

Ongoing Debate about... • Whether NVLD is a syndrome, a "white matter disorder" or manifestations of overlapping conditions. • NVLD disorders are **complex** and not as *specific* as the category specific learning disability might • It may be best to use a multidimensional model which requires a multidisciplinary team to assess and support. • Useful to take a developmental approach to describe the order of issues, ages/grades of onset (when first noticed) and allied professionals who will become involved in support Cluster of issues usually addressed in the order of presentation Treating NVLD in Children: The Role of the Occupational Therapist Rebecca Schatz. M.S., OTR/L

Motor · Bilateral coordination Balance Motor sequencing Body awareness Postural control Fine motor Motor Interventions Brain Gym® • Interactive Metronome ® • iLs Sensory motor integration Sensory Processing

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Tactile sense

Vestibular sense

Proprioceptive sense

Sensory systems include: Sensory challenges include:

Poor registration

Sensation seeking

Sensitivity to stimuliSensation avoiding

Poor Registration Children miss or notice fewer sensory cues Attention drifts Home strategies School strategies

Sensitivity to Stimuli

- Distractibility, hyperactivity
- Stronger reactions than peers to sensory input
- Tend to notice more things which pulls attention away from tasks
 - · Home strategies
 - School strategies

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Sensation Seeking

- Active, fidgety, continuously engaging
- Children are continuously seeking out sensory inputs
 - · Home suggestions
 - School suggestions

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Sensation Avoiding Resistance to change Reliance on rigid rituals Children are frequently bothered by sensory input so they choose to move away from activities or work alone Home suggestions School suggestions

Sensory Processing Interventions

- Sensory integration
- The Alert Program ®
- How does your engine run? ®
- Therapeutic Listening ®

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Handwriting Components

- Visual memory
- Orientation, direction, sequence and starting point
- Placement
- Size
- · Fine motor control- grip, pressure, grading
- Spacing

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Handwriting Interventions

- Handwriting Without Tears ®
- Benbow's Kinesthetic Writing System
- Write-On Handwriting LLC

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Classroom Strategies/ Accommodations

- Adaptive Seating
- Movement breaks
- Heavy work activities
- Visual schedules
- Verbal/physical prompting
- · Quiet corner
- Gum chewing
- Oral motor activities
- Writing implements
- Portable word processor/laptop

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