



Autism E-News
Volume 5, Issue 3
November 2007

Publication information: Copyright "Autism E-News" 2004, 2005, 2006, 2007. All Rights reserved. Copies may be distributed without alteration electronically free of charge. This newsletter may be reproduced without alteration, for non-commercial purposes without prior permission. "Autism E-News" does not assume responsibility for advice given. All advice should be weighed against your own abilities and circumstances and applied accordingly. It is up to the reader to determine if advice is safe and suitable for their own situation.

The Autism Priority project is thrilled to share this article by Gail Richard on differential diagnosis as it relates to students with Autism Spectrum Disorders. Dr. Richard is a Professor at Eastern Illinois University and has served as the Chair of the Department of Communication Disorders and Sciences at Eastern Illinois University since 2000. Dr. Richard is an ASHA fellow and serves on the Legislative Council of the American Speech-Language-Hearing Association (ASHA) and is a Fellow and Past President of the Illinois Speech-Language-Hearing-Association (ISHA). She has several clinical publications, and is an active consultant and speaker in the areas of childhood language disorders.

The Importance of Differential Diagnosis in Autism Spectrum Disorders

Gail J. Richard, Ph.D., CCC-SLP
Communication Disorders & Sciences
Eastern Illinois University
gjrichard@eiu.edu

Autism spectrum disorders (ASD) continue to increase in prevalence, with current figures reported as high as 1 in every 150 individuals. While it is important to recognize that ASD has become the highest incidence developmental disorder, it is also critical to

engage in careful evaluation of a child's symptoms before assuming that ASD is the definitive diagnosis.

Professionals are seeing more diverse and frequent developmental disorders than ever before. These disorders are not simple delays from lack of exposure or environmental stimulation; they represent central nervous systems that are biochemically different, resulting in poor reception and response to stimulation. A developmental disorder implies deficits in the maturation and integrity of neurological development during the preschool years. For whatever reason, we are witnessing an increasing number of young children whose central nervous system developments are delayed, and require focused intervention to 'jumpstart' the myelination process toward neurological integrity.

Dr. Stanley Greenspan's research on developmental disorders (Greenspan & Wieder, 1998) has identified three primary individual differences that are present when a child presents with a delay in the developmental period:

Difficulty in sensory modulation;
Impairments in processing;
Deficits in motor planning and sequencing.

Deficits in sensory modulation are observed as hyper and hypo responsiveness to sensory stimulation. Behavioral characteristics of this over and under sensitivity can include picky eating habits, self-stimulatory motor movements, slow toileting awareness, tactile defensiveness, and noise sensitivity.

Processing is the ability to attach meaning to a sensory stimulus. Children with developmental disorders are often very sensitive to the reception of sensory input, but not able to meaningfully interpret the stimuli received. For example, a child might hear someone talking, but not be able to abstract the message encoded within the language stimulus. A child might visually see something, but not interpret what the item is or what it functionally means.

The third area of deficit is poor motor planning and sequencing. Children with developmental disorders are often clumsy and awkward, resulting in significant challenges to develop fine motor and adaptive skills. Sequenced complex motor patterns are often deficit, resulting in difficulty riding a bicycle or tricycle, climbing stairs with alternating feet, tying their shoes, or snapping and zipping their pants.

These three deficit areas are all encompassed within characteristics of autism spectrum disorders (ASD), but they are also part of almost any global developmental disorder that occurs during the preschool years. Disorder labels are being introduced earlier in response to the early intervention efforts. The increased awareness regarding ASD has had both a positive and negative impact. The high profile of autism has resulted in many children being identified at an early age, leading to special services to intervene on the challenging aspects of the disorder. But the negative impact has been an over-diagnosis

of this particular disorder, leading to mischaracterizations of what autism is and what can be done to resolve it.

The increased awareness has resulted in many diagnostic checklists being utilized to assist in diagnosis of autism spectrum disorders. The problem that occurs is that the checklists are designed congruent with the autism characteristic profile. Consequently, if an autism checklist is used to quantify a child's developmental deficits, it results in the introduction of the autism label. Professionals need to utilize more generic checklists that consider the possibility of other developmental disorders, not just the autism spectrum.

For example, a child who has difficulty acquiring the motor planning and execution skills for producing speech is likely to use echolalia. Rather than trying to generate original spontaneous utterances, the child decreases the neurological demand by simply repeating what was just heard. The echoed verbalization doesn't mean that the child has an autism spectrum disorder; it means that the child has a developmental language problem. Echolalia occurs in cognitive impairments, processing disorders, autism spectrum disorder, medical syndromes, and neurological motor disorders.

Problems with interaction and social skills provide another example that can be misleading. Children who fail to initiate social interaction may do so for a variety of reasons. Severe phonological problems, language processing deficits, or extreme hypersensitivity to interaction evidenced in selective mutism are all possible developmental disorder labels that include challenges in social interaction. The physical isolation doesn't necessitate that the child should be diagnosed with an autism spectrum disorder.

There is a great deal of overlap across characteristics of developmental disorders during the preschool years. Consequently, it is very difficult to discriminate a differential label at 3 years of age. The younger a child, the more similar the characteristic profile across multiple developmental disorders. It is important for professionals to help parents recognized shared features, as well as discriminating features, to result in accurate differential diagnosis.

The more important task is to identify the developmental areas that have been compromised and need to be addressed in intervention. It is also important to evaluate these developmental areas to discriminate which skills are developing adequately, to offset or provide some intervention strategies to approach the weaknesses through strengths. Areas that need to be evaluated and incorporated into treatment include the following:

- Language
- Pragmatic/Social
- Sensory
- Fine & Gross Motor
- Medical Physical Involvement
- Behavior

As a child progresses through the developmental years, the residual features of specific developmental disorders will become more apparent. It is important to be cautious about introducing differential labels too soon. Children's neurological systems need time to mature, myelinate, and form synaptic connections in response to early intervention services.

Some summary thoughts:

Successful treatment depends on accurate and reliable diagnosis.

Avoid differential diagnosis during the preschool developmental years; use more generic disorder labels to qualify an individual for special services to address the deficits without categorizing the deficits into a definitive disorder label.

It is important to differentiate developmental disorders as the child reaches kindergarten to first grade age. The deficits that have not resolved in response to early intervention will assist in making an accurate differential diagnosis that needs to be in place for services through the formal educational years.

Don't treat disorder labels; treat individuals whose symptomatic profile has been evaluated and determined using careful observation.

Greenspan, S. & Wieder, S. (1998). The child with special needs: Intellectual and emotional growth. Reading: Addison Wesley Longman.

Richard, G. & Calvert, L. (2003). Differential assessment of autism and other developmental disorders. East Moline: LinguiSystems, Inc.

Regions 1 & 8 T/TAC at VCU

Joy Engstrom engstromjn@vcu.edu

Sue Palko palkosm@vcu.edu

Linda Oggel lsoggel@vcu.edu

Regions 2 & 3 T/TAC at ODU

Jennifer Mitchell jmitchell@ttac.odu.edu

Kelly Koons kkoons@odu.edu

Region 4 T/TAC at GMU

Karen Berlin kberlin@gmu.edu

Kris Ganley kganley@gmu.edu

Region 5 T/TAC at JMU

Sally Chappel chappesl@jmu.edu

Teresa Cogar cogartl@jmu.edu

Regions 6 & 7 T/TAC at VT

Pamela Lloyd plloyd@vt.edu

Teresa Lyons lyonst@vt.edu