


What Every Administrator Needs to Know About Autism Spectrum Disorders

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When asked to draw a star, I drew: 

Others drew: 

The man sitting next to me drew:



And said it was Rod Stewart.

*Everybody lives in a different world.
We only share the planet.*

(Vernon, 1989)

The History of Autism

- 1911 Swiss psychiatrist Eugen Bleuler first introduced the term autism. Swiss Autism and autistic stem from the Greek word "autos," meaning self. The term autism originally referred to a basic disturbance in schizophrenia, in short, an extreme withdrawal of oneself from the fabric of social life, but not excluding oneself.

A look at the History of Autism

- In the early 1900s, psychologist Carl Gustav Jung introduced the well-known personality types, extroverts and introverts
- Severe introversion was believed to be characteristic of autism and some forms of schizophrenia

History of Autism

- In 1944, American Bruno Bettelheim directed the Chicago-based Ortho-genic School for children with emotional problems, placing special emphasis on the treatment of autism.
- Bettelheim believed that autistic children had been raised in unstimulating environments during the first few years of their lives, when language and motor skills develop.
- "refrigerator mother."

History of Autism

- 1943 Leo Kanner published his report while at Johns Hopkins. He conducted a case study of 11 children who appeared to share a number of common characteristics that he suggested formed a "unique 'syndrome' not heretofore reported." He titled the article, "Autistic disturbances of affective contact," and characterized the children as possessing, from the very beginning of life, what he called an "extreme autistic aloneness."

History of Autism

- **1944 Hans Asperger published "Autistic psychopathy in childhood." The article presented a case study of several children whom he described as examples of "a particularly interesting and highly recognizable type of child."**

Kanner and Asperger

- **They both chose the word autism, a term coined by Bleuler in reference to the aloneness experienced by schizophrenic patients, in order to characterize the nature of the underlying disturbance. The common feature of this disturbance was that the children seemed unable to entertain normal relationships with people.**

History of Autism

- **In contrast to Bleuler's schizophrenia, the disturbance observed by Kanner and Asperger appeared to have been there from birth. Kanner's paper has become the most quoted, while Asperger's paper, written in German during World War II, was largely ignored. The belief has grown that Asperger described quite a different type of child, not to be confused with the one Kanner described.**

History of Autism

- **1981 Lorna Wing translates Asperger's work and adds insight**

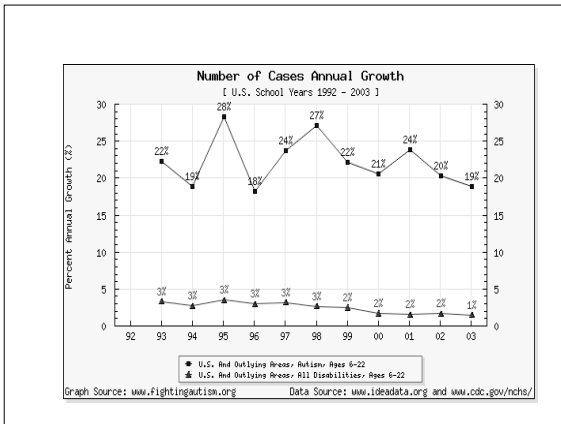
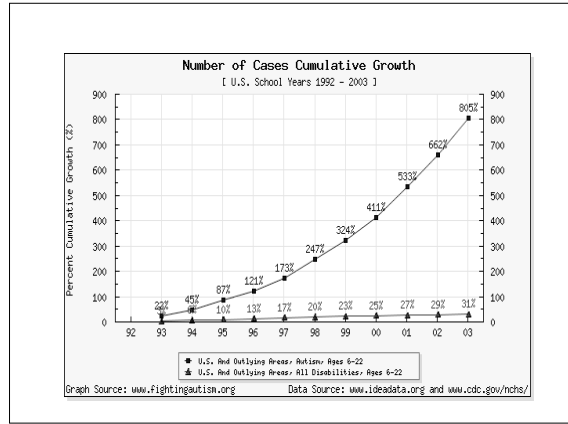
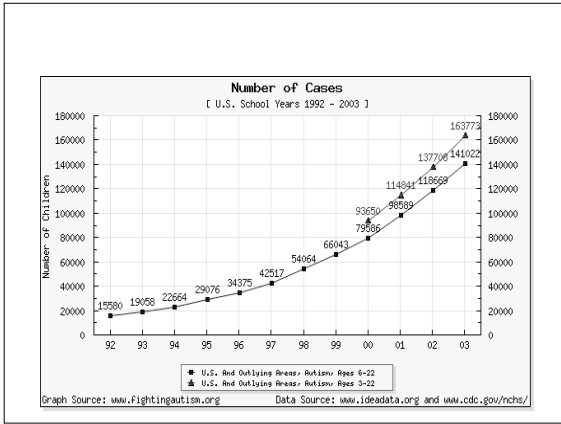
Autism By Numbers

- **USA – 1980's: 1-2 per 10,000 children**
- **USA – Late 1990's: 1 in 500 (20 per 10,000)**
- **USA – 2000: 1 in 250 (40 per 10,000)**
- **USA – 2004: 1 in 166 (60 per 10,000)**
- **USA – 2007: 1 in 150**

- **UK – 2004: 1 in 166 (60 per 10,000)**
- **Denmark – 2004: 1 in 1,300 (7.7 per 10,000)**

What are the True Numbers?

- **Autism Occurrence:**
 - 1:150 children in the United States
- **United States Facts**
 - A new case is diagnosed every 20 minutes
 - 24,000 new cases in U.S every year
 - Economic impact is \$90 Billion
 - 90% of costs are in adult services
 - Cost of lifelong care can be reduced by 2/3 with early diagnosis and intervention
 - In 10 years, the annual cost will be \$200-400 billion
 - Autism receives less than 5% of the research funding prevalent childhood diseases
 - Autism is the fastest growing developmental disability in the U.S
 - 1 to 1.5 million Americans(2)
 - 10 - 17 % annual growth
- **Growth comparison during the 1990s**
 - U.S. population increase: 13%
 - Disabilities increase: 16%
 - Autism increase: 172%



Funding Research

- Funding
 - \$29 Billion National Institute of Health (NIH)
 - \$5 Billion funding to relevant NIH departments
 - Less than \$100 Million or the \$5 billion directly impact autism research.....3%
- How does funding compare
 - Leukemia 1 in 25,000: \$300 Million
 - Muscular Dystrophy 1 in 20,000: \$160 Million
 - Cystic Fibrosis 1 in 5000: \$140 Million
 - Juvenile Diabetes 1 in 500: \$140 Million
 - Autism 1 in 150: \$15 Million

What Causes Autism?

- Scientists aren't certain what causes autism, but it's likely that both genetics and environment play a role.
- Researchers have identified a number of genes associated with the disorder. Studies of people with autism have found irregularities in several regions of the brain.
- Other studies suggest that people with autism have abnormal levels of serotonin or other neurotransmitters in the brain. These abnormalities suggest that autism could result from the disruption of normal brain development early in fetal development caused by defects in genes that control brain growth and that regulate how neurons communicate with each other.

What Causes Autism...Genetics?

- Recent studies strongly suggest that some people have a genetic predisposition to autism. In families with one autistic child, the risk of having a second child with the disorder is approximately 5 percent, or one in 20.
- Researchers are looking for clues about which genes contribute to this increased susceptibility. In some cases, parents and other relatives of an autistic child show mild impairments in social and communicative skills or engage in repetitive behaviors.
- Evidence also suggests that some emotional disorders, such as manic depression, occur more frequently than average in the families of people with autism.

Genetic Factors

- A strong genetic component in autism is shown by the high number of identical twins both having the condition compared to non-identical twins, and a risk among brothers and sisters of affected people that is 75 times greater than for the general population. Researchers are examining a number of chromosome sites that could be implicated, especially on chromosomes 7 and 15.
- It's likely that autism occurs with the interaction of a small number of specific genes - and possibly with some external event or factor. These genes have yet to be pinned down but may include the HOXA1 gene, which is active in the brain stem only during development, when the first neurons are forming in the embryo.
- There's no simple screening test to identify those people carrying genes that might increase susceptibility to autism, and no prenatal screening available.

The Autism Spectrum

- There is a continuum or spectrum of autistic disorders (ASD) held together by a **triad** of impairments affecting:
 - social interaction
 - communication
 - and imagination, accompanied by a narrow repetitive pattern of activities.

Pervasive Developmental Disorders

- Autistic Disorder
- Asperger's Disorder
- Rett's Disorder
- Childhood Disintegrative Disorder
- PDD-NOS
 - (DSM-IV-TR)

Autistic Disorder

- Social Interaction
- Communication
- Patterns of Behavior
- Onset Prior to Age 3
- Rule Out Rett's or CDD

Asperger's Disorder

- Social Interaction
- Patterns of Behavior
- No significant general language delay
- No significant cognitive delay
- Not another PDD or schizophrenia

Theory of Mind

- The ability to attribute thoughts and feelings to others and to understand that others have perspectives which are unique and different from our own

Theory of Mind

- Difficulty in...
 - predicting
 - reading intentions
 - understanding emotions
 - explaining own behavior
 - understanding that behavior impacts others

Central Coherence Theory

- Tendency to draw together diverse information to construct higher-level meaning in context.
- Ability to get the gist by looking for a few relevant, socially important cues.
- Tends to be weak in persons with ASD. Therefore, they are relatively good at piecemeal processing, but weak at recognition of global meaning.
- Those with ASD experience life as a series of "freeze frames" and are good at seeing parts or details instead of wholes.

Identification & Diagnosis

- Currently a Medical diagnosis
- Characteristics of AS are typically seen
 - In interactions with peers
 - In stressful situations
 - In environments where the schedule or routine is not predictable
 - When a high degree of structure is and is not in place
 - When sensory stressors are apparent
 - In situations that are new

Social and Communication Characteristics

- Social and Communication deficits are particularly prominent
- Children with AS are often socially isolated
- Children with AS often demonstrate problems interacting with others not explained by
 - Shyness, short attention span, aggression, lack of experience
- Children with AS want to interact with others

Social and Communication Characteristics

- Social difficulties range from social withdrawal and detachment to unskilled social activeness
- Social and Communication skills are often masked by advanced verbal skills
 - One-sided conversational style
 - Monologues
 - Narrowly focused interests
 - Cannot share conversational topics
 - Appear unwilling to listen to others
 - Perceived as adult-like, talking down to others

Social and Communication Characteristics

- Children and youth with AS often do not understand nonverbal cues
 - Facial expressions, gestures, voice tone, physical proximity
- Difficulty understanding thoughts, feelings, perspectives of others when they differ from their own (Theory of Mind deficit)
- Typically unable to infer the meaning of facial expression to events

Social and Communication Characteristics

- Typically can engage in basic/introductory social interactions...without being able to engage in reciprocal conversations
 - Lack awareness of social rules
 - Lack common sense
 - Misinterpret social prompts, cues, unspoken message
 - Display unacceptable behaviors/habits

Social and Communication Characteristics

- Students with AS are easily stressed
 - Think others are invading their space
 - Unpredictable/novel situations
 - Feel others are “making fun” of them
- Typically do not reveal stress through
 - Voice tone, overt agitation...
- May escalate to point of crisis QUICKLY
 - Inability to predict, control, manage uncomfortable situations
- Aware of social difficulties...anxiety and depression
 - Barnhill..70% Depression

Behavioral and Emotional Characteristics

- Behavioral and emotional problems are often connected to their social deficits
- Problems frequently involve feelings of stress, loss of control, or inability to predict outcomes

Sensory Characteristics

- Atypical sensory responses
- Often engage in stereotyped or repetitive seemingly nonfunctional behaviors when:
 - Under stress
 - Experience fatigue
 - Sensory overload
- Sensory issues in AS are similar to autism
 - Reactions are more negative
 - More likely to have tantrum/disruptive behavior when experiencing sensory overload

Autism over the Lifespan

Do symptoms of autism change over time?

- For many children, autism symptoms improve with treatment and with age.
- Some children with autism grow up to lead normal or near-normal lives.
- Children whose language skills regress early in life, usually before the age of 3, appear to be at risk of developing epilepsy or seizure-like brain activity.
- During adolescence, some children with autism may become depressed or experience behavioral problems.

#1: View behavior as a form of communication

- Behavior typically serves 2 primary functions
 - Escape or avoid
 - Demand or request
 - Activity
 - Person
 - Sensory
 - Get or obtain
 - Attention
 - Desired item or activity
 - Sensory

Effective Programming

(Dawson and Osterling)

- Intensive attention to curricular needs
- Highly supportive teaching environments and generalization strategies
- Predictability and routine
- Functional approach to behavior problems
- Transition support
- Family involvement

Ten Things Your Student with Autism Wishes You Knew

Written by Ellen Notbohm, 2006

- 📖 Learning is Circular
- 📖 We are a Team
- 📖 Think Differently
- 📖 Behavior is Communication
- 📖 Glitched, Garbled, and Bewildered
- 📖 Teach the Whole Me
- 📖 Be Curious
- 📖 Can I Trust you
- 📖 Believe
- 📖 Teach Me How to Fish

Children with ASD do not demonstrate aberrant behaviors as a means to “get on your nerves” to be obnoxious or to be malicious. They are communicating something....it is our job to figure out what they are trying to tell us

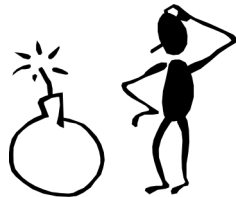
Student Protection

- 90% of students with AS report being seriously bullied
- Over 60% indicate that telling a teacher makes it worse
- 2/3 report that their teachers don't like them as well as other students

Asperger Syndrome and The Three R's

- Rumbling
- Rage
- Recovery

• Myles & Southwick 1999



Interventions

- Academic
- Social
- Behavioral
- Communication
- Alternative

Visual Supports

- Calming Supports
- Consequence Maps
- Behavior Cue Cards
- Power Cards
- Topic Meter

Important Legislation

- Kansas Autism Task Force
- Kansas Coalition for Autism Legislation (KCAL)
- The Work Group on Autism Research and Training
- Combating Autism Act
- Teacher Education for Autistic Children Act of 2007
- Department of Defense Autism Bill
- Services Bill, Expanding the Promises for Individuals with Autism “Yippee Ky Yah” Bill
- Coalition for Autism Research and Education (CARE)

Resources -Training

- Interactive Collaborative Autism Network (www.autismnetwork.org)
 - Online instructional modules on autism spectrum disorder (ASD).
 - Information about characteristics, assessment, and academic, behavioral, communication, environmental, sensory, and social interventions.
- Autism Internet Modules (www.autisminternetmodules.org)
 - 60 online modules on ASD

Websites

- Autism Society of America
www.autism-society.org
- Autism Society of the Heartland
www.autismsocietyoftheheartland.org
- Autism Alliance of Kansas City
www.autismalliancekc.org
- Bi-State Autism Initiative
www.kcautism.org/autismsummit.html
- Center of Disease Control and Prevention
www.cdc.gov/ncbddd/autism
- National Autism Center
www.nationalautismcenter.org
- Autism Speaks
www.autismspeaks.org

“Not every child has an equal talent or an equal ability or equal motivation; but children have the equal right to develop their talent, their ability, and their motivation.”

-John F. Kennedy