

What is Autism?

People with ASD demonstrate deficits in social-emotional reciprocity, deficits in verbal and nonverbal communicative behaviors used for social interaction and deficits in developing, maintaining and understanding relationships.

"Unique" Gifts- What makes a person with Autism exceptional is that they usually are blessed with an area of special giftedness. The goal is to plan ways to address the challenges of Autism so the person's giftedness gets the most attention.

Challenge	Strategy for Responding
Responding to social situations and social clues	Explain scenario for student and appropriate behavior, emotional, and safety response.
	Explain social situations as they arise.
Delayed response to receptive/expressive language	Silently wait a few extra seconds for response
	During class try to forewarn student of when their turn to respond so they are prepared.
	If no response after a few seconds give reminder prompt and ask if they are still thinking about it.
Rigid and repetitive behaviors	Refer student to syllabi. Give students advance notice of change to schedule
	If repetitive behaviors interrupt learning of student or others calmly ask student to meet you after class. Offer a replacements like fidgets, gum, and drink of water, deep breaths, and advice on how to control behavior. If behaviors persist contact AR
Executive Function Organization	Refer student to Study and Organization skills Using Universal Design for Learning (See Accessibility
	Resources webpage for support) Present lecture using Multiple Means of Action and Expression
Responding to multi-step verbal instruction in class/employment	Write step by step concise steps. Model steps, student practice, and student does homework
	Simply let the person know that you feel most comfortable when people are within one arms distance away. Sometimes you may have to demonstrate by holding your arm out in front of you.



Current Research on Cause of Autism

Oct, 2017

WORLD'S LARGEST AUTISM GENOME DATABANK ADDS MORE THAN 2,000

SEQUENCES "To provide guidance on personalized care to people with autism, it's important to fully understand what genetic form of autism each person has," says MSSNG research director Stephen Scherer. "To accomplish this, we need to perform whole genome sequencing on a large and diverse group of participants and provide this information to the research community in an accessible form." Dr. Scherer also directs The Centre for Applied Genomics at The Hospital for Sick Children (SickKids), in Toronto.

Aug, 2014

Brain Study Finds Evidence that Autism Involves Too Many Synapses

Many genes linked to autism are known to affect the development or function of brain synapses. Indeed, the idea that individuals with autism have excess synapses has been proposed before.

Dr. Tang measured the abundance of synapses in a small section of cortical tissue from each brain. She found that, by late childhood, the density had dropped by about half in the brain tissue unaffected by autism. By contrast, it was reduced by around 16 percent in the brains from individuals who had autism.

Applying findings to mouse models

Using mouse models of autism, the researchers traced the pruning defect to a protein called mTOR. When mTOR is overactive, they found, brain cells lose much of their self-pruning ability. As a result, the brain cells show an overabundance of synapses.

The researchers restored normal autophagy and synaptic pruning in the mice by administering rapamycin – a drug that inhibits mTOR. Treatment eliminated the mice's autism-like behaviors. The treatment remained effective even when administered to older mice that had fully developed the autism-like behaviors.

The researchers cite this as hopeful evidence that similar treatments might someday be used to treat autism after symptoms have fully emerged. As further evidence, the researchers found large amounts of overactive mTOR in the postmortem brain tissue of the individuals with autism.

Though hundreds of genes have been linked to autism, the researcher conclude, many if not most of them may affect this mTOR/autophagy pathway.



Kerry Magro, an award-winning international motivational <u>speaker</u> and best-selling author who's on the autism spectrum. A version of this blog originally appeared on <u>Kerrymagro.com</u>. responding to the new TV series titled The Good Doctor.

Aren't we judged by how we treat people? I don't mean as doctors I mean as people. Especially those who don't have the same advantages that we have. We give hope to those people with limitations that those limitations are not what they think they are. That they do have a shot.

A quote I tell audiences when I travel the country speaking is that, "Autism can't define me. I define autism." Shaun and I are not defined by our diagnosis.

Thoughts from an employee with Autism

The unspoken social rules of an office environment are a challenge for me, and I cannot pick up on them inherently as others can. Yet, if I am carefully taught something, step-by-step, I can do it without a problem. For me, this means that my ideal work environment is one where I won't be afraid to ask for help, and when I do, I actually get it. Like all individuals on the spectrum, I have a great deal of potential, but only if employers themselves can learn to think outside the cubicle.

Resources for additional information on Autism

https://www.autismspeaks.org

Brenda Smith Myles, Hidden Curricula

Temple Grandin, The Autistic Brain, Thinking in Pictures, Different is not Less

Ricki Robinson, Autism Solutions

Books and Television Shows

This list in recent years includes characters such as:

Shawn in The Good Doctor

Walter Hill in Joyful Noise,

Billy in the new Power Rangers Movie,

Jane in Jane Wants a Boyfriend

Sam Gardener, a high-functioning teen with autism in Netflix's Atypical. Sheldon in Big Bang Theory