

What is Autism?

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<http://autism.asu.edu>

www.phxautism.org

Always
Unique
Totally
Interesting
Sometimes
Mysterious



Outline

- Symptoms
- Causes of Autism
- Treatments
- Examples of adults with ASD in workplace

Core Symptoms

Major Impairments in:

- Social Skills/Relationships
- Communication
- Stereotypic Behaviors/Desire for Sameness

Autism is a spectrum disorder:

Autism / Autism Spectrum Disorder/PDD-NOS/
Aspergers,

impairment in social skills is common to all

Autism is a label, not a medical diagnosis

Co-occurring symptoms

- Intellectual Disability– but must be tested with non-verbal IQ test
- Seizures: 25-35% - often treatable with medication
- Diarrhea/Constipation: 30-50% - treatable
- Sleep problems: 50% - often treated with melatonin
- Low muscle tone: 30% - OT, PT can help
- Pica: eating non-food items: 10%
- Sensory Sensitivities: 50-75%: touch, vision, sound, taste, smell, pain; under- and/or over-sensitive
bright lights, fluorescent lights, loud high-pitched sounds are common problems

Prevalence of Autism

- 1970's: 2-3 per 10,000
- 2006: 90 per 10,000 (1 per 110) (CDC, 2009)
- 2009: 147 per 10,000 (1 per 68) (CDC, 2013)

Little change in genetics

25% of increase due to better diagnosis (King, 2009)

Most of increase due to unknown environmental factors

Genetic or Environmental Cause?

- Studies of identical twins reveal:
 - Co-occurrence is 40-80%; (Hoekstra, 2011)
 - Suggests genetic and environmental factors important
- 2011 California twin study – 192 twin pairs
 - Co-occurrence in identical twins is 50-78%, vs. 21%-36% for fraternal (dizygotic) twins
 - Suggests genetics account for 38% of autism, and environmental factors account for 58%
- If a couple has one child with autism, then 19% chance other children will have autism (Ozonoff 2011, based on study of 664 siblings)

Genetic vulnerability + environmental exposure

Prognosis?

Two major lifetime studies

Autism: 90% of adults unable to work, unable to live independently, < 1 social interaction/month

Asperger's (50% with college degrees):

similar prognosis – social skills limited use of intellectual abilities

Grim prognosis if untreated, but many treatments now available, and there is MUCH more hope

Autism is TREATABLE!

Behavioral Therapies

Education

Biomedical Therapies

Many children now greatly improve, and
some even recover, due to behavioral and/or
biomedical interventions

Education/Training

- High expectations
- Focus on strengths and special interests
- Visual supports
- Step-by-step instructions
- Concrete language
- Social communication
- Avoiding bullying=battery/assault
- Best Buddies

Adult Issues

- Vocational: 80% are unemployed, primarily due to lack of social skills, not work skills
- Residential: 80% are unable to live independently
- Social:
 - Anxiety;
 - Lack of friends -> loneliness -> depression



Temple Grandin, Ph.D.

Professor at Colorado State University
adults with autism

“Different, not less”

Temple used her insights into sensory challenges and her visual thinking to become the leading expert on designing cattle-handling facilities.

Wrote 6 books about autism, and is a professor at Colorado State.

Focus on strengths, not disability

“Some of the most successful people on the autism spectrum who have good jobs have developed expertise in a specialized skill that people value. If a person makes him-/herself very good at something, this can help make up for some difficulties with social skills. Good fields for higher functioning people on the spectrum are architectural drafting, computer programming, language translation, special education, library services and science. It is likely that some brilliant scientists and musicians have a mild form of Asperger’s Syndrome (Ledgin, 2002). The individuals who are most successful often have mentors either in high school, college, or at a place of employment. Mentors can help channel interests into careers.” Tempe Grandin, Ph.D., adult with autism

Examples of higher-functioning adults with ASD

- John –after high school, willing to work if offered a job, but discouraged from not being hired so now sits at home watching tv
- Joe – graduated from ASU summa cum laude with degrees in information science and accounting; unemployed for 5 years before finding job, but unhappy with job due to too many interactions with people
- Tom – graduated from ASU with MS in Education, but no school would accept him as student teacher (odd social affect), so unable to earn teaching certificate
- Karen – works as SLPA and habilitation provider for children with ASD for 10+ years
- Mike – BS in engineering, did CAD for 7 years, but when laid off worked as janitor for 2 years before finding another CAD job, now there for 10 years

Examples of lower/moderate functioning adults with ASD

- Daniel – 1 year internship with Project Search; now does laundry at hotel
- Mark – enjoys tearing paper into pieces at home; found ideal job shredding paper
- Kim: autism and intellectual disability; functioning at 3rd grade level; 2.5 years in WorkBridge in high school; 1.5 years at Chandler/Gilbert ARC sheltered workshop doing assembly (very fast); now intern (via DDD) at Hacienda Healthcare doing housekeeping, laundry. Likes repetitive work

Summary

Autism involves challenges in communication, social interactions, and behavior.

Co-morbid conditions may include intellectual disability, seizures, sensory sensitivities, GI problems, low muscle tone

Autism incidence is rapidly increasing, so soon many more adults with ASD will be entering the workforce.

Many barriers to work exist, but success is possible.

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