
Understanding Core Program Needs for Students with Asperger's Syndrome

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What is Asperger's Syndrome?

- **Asperger's Syndrome is a neurological disorder that falls within the higher functioning end of the autism spectrum. Similar to high functioning autism with no language delay or significant cognitive weakness.**
- **Asperger's Syndrome which first appeared as an entry in 1994, is one of five disorders defined as a Pervasive Developmental Disorder by the American Psychological Association (APA) in the DSM-IV.**

DSM-IV Categories

Pervasive Developmental Disorders

Autistic Disorder

Asperger's Syndrome

PDD-NOS

Childhood Disintegrative Disorder

Rhett's Syndrome

What is Asperger's Syndrome

- **Qualitative impairment in social interaction**
- **Restricted, repetitive and stereotyped patterns of behavior, interests, and activities**
- **Clinically significant impairment in social, occupational, or other important areas of functioning**
- **No clinically significant general delay in language**
- **No clinically significant delay in cognitive development or in the development of age appropriate self-help skills, adaptive behavior and curiosity about the environment in childhood.**

Asperger's Syndrome

- **Four times more boys than girls**
- **Found in all cultures and economic groups**
- **Present before age 3 though may be diagnosed later**
- **May co-exist with other disorders (anxiety, depression, ADHD, OCD, LD)**
- **No known cause**
- **No known cure**



Asperger's Profile

Marked Impairments in Domains

- **Social**
- **Communication**
- **Behavior**

Diagnosis

- based on observable behaviors and pattern of development
- Meet DSM-IV Criteria
- Rule out other disorders



Communication Profile, Implications, and Treatment

ASHA

Pragmatic Language

- Using language for different purposes such as...
- Changing language according to the needs of a listener or situation such as...
- Following rules for conversations and storytelling, such as...

Perseveration

- Repetition of a thought or question, typically increases with stress.

Usage of Speech

Communication

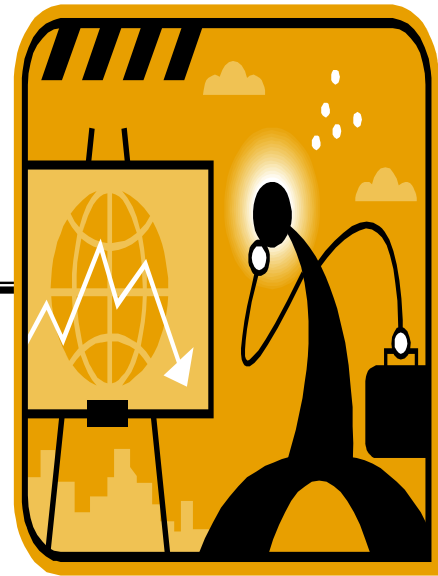
Profile, Implications, and Treatment

NRC, 2001; ASHA 2006

- **There is empirical support demonstrating the effectiveness of a range of approaches for enhancing communication skills of individuals with ASD along a continuum from behavioral to developmental.**
- **Intervention research is not yet available to predict which specific intervention approaches or strategies work best with which individual with ASD.**

Educational Impact

- **Weak written expression skills**
- **Fine motor difficulties**
- **Perseverations of topics**
- **Communication influenced by pragmatic language difficulties**
- **Social isolation problematic**
- **Wants friends; difficulty getting and keeping them**
- **Socially naïve and vulnerable**
- **Gross motor clumsiness**



Educational Impact



- **Low motivation for undesired activities**
- **Unusual sensory reactions (tactile defensive)**
- **Unusual play and learning patterns to include restricted areas of interests**
- **Variable attention, activity level**
- **Difficulty maneuvering through school considering social, communication and behavior challenges.**
- **May become subject of teasing**

Educational Strengths



- **High academic abilities- average to above average**
- **High verbal abilities**
- **Tend to be direct in verbal presentation**
- **Odd usage of language**
- **Often good in technical positions**
- **Often a sense of mechanical intuition**
- **Detailed oriented - may exhibit artistic talent**
- **Phenomenal memory**

Educational Strengths

- **May develop expertise in areas of interest**
- **Good potential for secondary school**
- **Prognosis good for contribution to society**
- **Often capable of earning advanced degrees (Ph.D.)**



Georgia Department of Education
Kathy Cox, State Superintendent of Schools

Students with Asperger's Syndrome Gifted and Talented Students



Students with AS may be eligible to be served in a “gifted” program in addition to other types of special education support programs. Each student must be individually considered for a variation of services based on individual strengths and weaknesses.



National Academy of Sciences Report: Educating Children with Autism

www.nap.edu

- **Report from 2001 summarizing intervention research for children with autism**

Features of Effective Interventions:

- ❖ Begin as early as possible
- ❖ Intensive intervention (year-round, 25+hours)
- ❖ Individualized goals with repeated practice
- ❖ Family involvement and training
- ❖ Low student: teacher ratios
- ❖ Built-in ways to measure progress with adjustments made to intervention program

National Academy of Sciences Report: Educating Children with Autism

www.nap.edu

- ❖ Functional Communication
- ❖ Social Tolerance and Interaction
- ❖ Appropriate Engagement
- ❖ Independent Self-help Skills
- ❖ Organizational Skills
- ❖ Leisure Skills
- ❖ Family and Team Involvement
- ❖ Team=child, family, teachers, other school personnel, therapists, community...
- ❖ Everyday environments

Programmatic Needs

Proactive Approach

- **Proactive positive behavior intervention plan**
- **Highly structured environment (visual schedule)**
- **Predictable routine**
- **Team approach for support and related services to include therapies**
- **Emotional support**
- **Social skills training**
- **Technology support**



Programming Needs and Instructional Supports

- **Systematic social skills and pragmatic language training**
- **Social mentoring (generalized to the natural environment)**
- **Instructional accommodations**
- **Assistance with organization and planning**



Assistive Technology

Definition of Assistive Technology

- Any item, piece of equipment or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of children with disabilities.

Individuals with Disabilities Education Improvement Act of 2004

Assistive Technology

Assistive Technology Service

Assistive technology service is any service that directly assists an individual with a disability in the selection, acquisition, or use of an assistive technology device.

Individuals with Disabilities Education Improvement Act of 2004

Assistive Technology

- **Assistive Technology consists of various items in a continuum from “low” tech to “high” tech.**
- **Various types of technology can be provided and used for the same student based upon individual need within a variety of activities and environments.**

Assistive Technology

“Low” technology → Any strategies/interventions that are not battery powered or electronically operated. “Low” tech strategies are usually low in cost and easy to use.

- Picture Exchange Communication Systems
- Dry Erase Boards
- Clip Boards or 3 ring binders
- Laminated Photographs/ Visual Supports
- Photo Albums
- Manipulatives/Objects

Assistive Technology

- **“Mid” technology → Strategies that require the use of batteries or basic electronic devices that are used primarily as a means to support expressive communication.**
 - Voice Output Communication Aids –equipment that records voice and can be activated by touch. The voice is often paired with a picture clue.
 - Language Master – cards with recordable strips are run through the machine to produce sounds. You have the option of adding pictures to the cards.
 - Tape Recorders, Timers, Calculators

Assistive Technology

“High” technology → Strategies that are usually the most expensive and complex to use.

Video cameras

Computers

Adaptive hardware for computers

Specialized computer software

Sophisticated voice output devices

Assistive Technology

WHY?

- **Most students with autism process visual information easier than auditory information.**
- **The use of assistive technology devices and strategies presents information visually.**
- **Assistive technology allows students to engage and interact.**
- **Assistive technology can increase student independence.**

Assistive Technology

Important Tips to Remember

- Always try less intrusive low technology strategies first
- Be sure that the technology matches the needs and abilities of the individual child
- Analyze the environment to see which type of device will most support the child's participation

**THE DEVICE MUST MATCH THE CHILD'S
ABILITIES AND DEMANDS OF THE
ENVIRONMENT**

Interventions/ Eclectic

ASPEN www.aspennj.org

- ABA
- Lovaas
- Floortime
- Gluten Free Casein Free Diet
- Occupational Therapy
- Speech Therapy
- TEACCH
- Relationship Dev. Int.
- Sensory Integration Therapy/ Diet
- Verbal Behavior Intervention
- Hippo-therapy
- Listening Therapy
- SCERTS
- Chelation (Detox)
- Secretin

Interventions and Therapies

- **Applied Behavior Analysis (ABA) – Process of systematically applying interventions one to one and recording data based upon the principles of a learning reinforcement theory to improve behaviors.**
- **Based on Skinner**
- **Methods use principle of positive reinforcement to strengthen a behavior by arranging for it to follow something of value**

Types of ABA

Discrete Trial – (DTT) A single cycle of a behaviorally-based instruction routine. A trial may be repeated several times in succession, per day, week, over several days, until the skill is mastered.

Early intensive behavioral intervention (EIBI)

ABA and positive behavior support (PBS) DTT, language instruction, incidental teaching, peer modeling, video modeling, social stories, Picture Exchange Communication System (PECs) and sign language, natural environment shadowing and semi-structured play dates

Types of ABA

- **Incidental teaching-** provides structured learning opportunities in the natural environment by using the child's interest and natural motivation.
- **Pivotal response training (PRT)** – variant of discrete trial wit emphasis on giving the child power to make choices.
- **Verbal Behavior Approach** focuses on teaching specific components of expressive language first.

Behavioral and Educational Interventions

- **Developmental, individual differences, relationship-based approach (DIR or Floortime)**
- **Stanley Greenspan**
- **Based on the premise that child can increase and build a larger circle of interaction with an adult who meets the child at his current developmental level and who builds on the child's particular strengths.**

Behavioral and Educational Interventions

- **Relationship development intervention (RDI)**

Steve Gutstein

**Parent based treatment which focuses on emotional development – problem gaining friends, feeling empathy, expressing love and being able to share experiences with others.
*(how do you move forward?)***

Behavioral and Educational Interventions

UNC Chapel Hill

- **Treatment and education of autistic and communication-related handicapped children (TEACCH)**

– *Eric Schopler, R.J. Reichler and Ms. Margaret Lansing*

Special education program

Tailored to the autistic child's individual needs

Focus is on design of the physical, social and communicating environment

The environment is structured to accommodate the difficulties a child with autism has while training them to perform in acceptable and appropriate ways

Complementary and Alternative Medicine

CAM is a group of different medical and health care systems, practices, and products that are not part of conventional medicine

National Center for Complimentary and Alternative Medicine

<http://nccam.nih.gov/health/whatiscam/#1>. Accessed 2006

- **Alternative medical systems** (homeopathy or Chinese medicine)
- **Mind-body interventions** (meditation, dance therapy, auditory integration)
- **Biologically based therapies** (using herbs, foods, vitamins)
- **Manipulative and body-based** (deep pressure, brushing)
- **Energy therapies** (electromagnetic fields, etc.)

Research on Treatment

www.clinicaltrials.gov

Lists federally funded studies that are looking for participants. Go to this website per “autism”

www.autismspeaks.org

The Autism Treatment Network (ATN) seeks to create standards of medical treatment that will be made broadly available to physicians, researchers, parents, policy makers, and others who want to improve the care of individuals with autism.

Research for Treatment and National Standards



www.nationalautismcenter.org

National Autism Center – Finalizing a Standards Project

*Impressive group of clinicians, practioners,
behaviorists collaborating to finalize National
Autism Standards.*



**Go to the website and you can
request a copy as soon as released!**

Questions

Q and A



Additional Resources

- **US Department of Education** www.ed.gov
- **Georgia Department of Education** www.ga.doe.gov
- **Centers for Disease Control** www.cdc.gov
- **American Speech-Language-Hearing Association** www.asha.org
- **Asperger's Organization** www.asperger.org
- **Autism Society of America** www.asa.org
- **Babies Can't Wait Georgia** www.ph.dhr.state.ga.us/programs/bcw/index.shtml
- **Organization for Autism Research** www.researchautism.org
- **Autism links** www.autism.org/links.html
- **Asperger's Syndrome Information**
www.udel.edu/bkirby/asperger/
- **National Academy of Sciences** www.nap.edu

Additional Resources

- **Attwood, Tony. Asperger's Syndrome: A Guide for Parents and Professionals. Kingsley Publishers, 1998.**
- **National Research Council. Educating Children with Autism. Washington, DC: National Academy Press, 2001.**

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