

Pediatric Mental Health Care Access Grant

# **Autism Spectrum Disorder: Current Presentation and Treatment**

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## **OBJECTIVES**

- 1. Review the behavioral presentation of Autism Spectrum Disorder**
- 2. Describe basic treatment strategies**
- 3. Describe Best-Practice Treatment approaches for Autism Spectrum Disorder based on behavioral presentation**



## **SOCIAL INTERACTION AND COMMUNICATION**

- Deficits in social-emotional reciprocity
- Atypical social approach
- Difficulty initiating and/or sustaining
  - Social Interactions
  - Reciprocal conversation
- Reduced sharing of interest and emotions/affect



## **SOCIAL INTERACTION AND COMMUNICATION**

- Deficits in nonverbal communicative behaviors
- Poorly integrated verbal and nonverbals
- Abnormalities in contact and body language
- Deficits in understanding and use of gesture
- Reduced facial expression



## **SOCIAL INTERACTION AND COMMUNICATION**

- Deficits in developing, maintaining and understanding relationships
- Difficulty adjusting behavior to suit various social contexts
- Difficulty sharing imaginative play
- Difficulty making/keeping friends
- Absence of interest in peers



## **RESTRICTED/REPETITIVE BEHAVIORS/INTERESTS**

- Stereotyped or repetitive:
  - Motor movements
  - Use of objects
    - Lining up toys
    - Flipping objects
  - Speech
    - Immediate and/or delayed echolalia
    - Idiosyncratic phrases



## **RESTRICTED/REPETITIVE BEHAVIORS/INTERESTS**

- **Insistence on sameness**
- **Inflexible adherence to routines**
- **Ritualized patterns of verbal/nonverbal behaviors**
  - **Extreme distress at small changes**
  - **Difficulties with transitions**
  - **Rigid thinking patterns**
  - **Needing routine**



## **RESTRICTED/REPETITIVE BEHAVIORS/INTERESTS**

- **Highly restricted, fixated interests that are abnormal in intensity or focus**
  - **Strong attachment to or preoccupation with objects,**
  - **Excessively circumscribed or perseverative interests**



## **RESTRICTED/REPETITIVE BEHAVIORS/INTERESTS**

- Hyper-or hypo-reactivity to sensory input
- Unusual interest in sensory aspects of environment
  - Apparent indifference to pain/temperature
  - Excessive smelling or touching of objects
  - Visual fascination with lights or movement
  - Adverse response to:
    - Sound, texture, and/or light

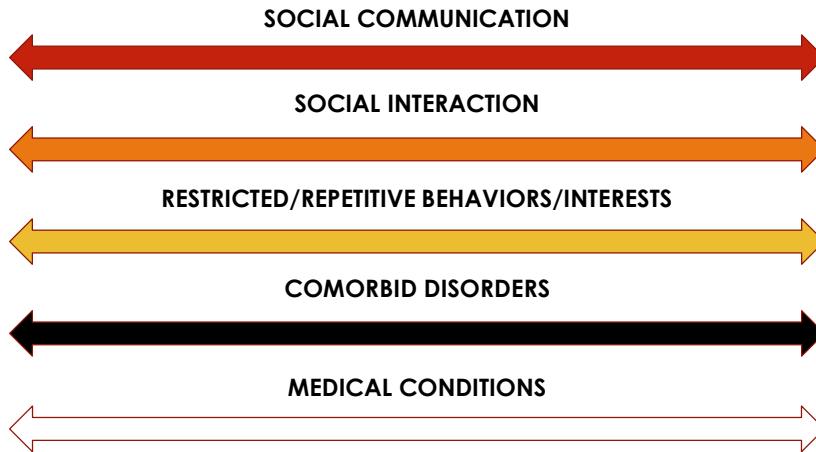


## **TREATMENT**

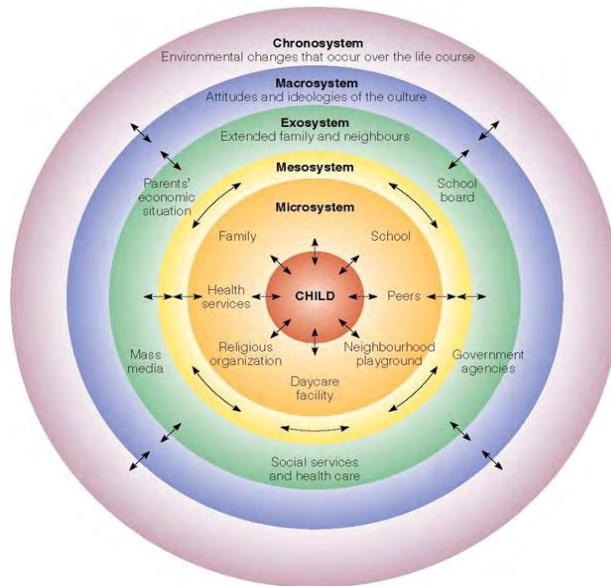
*"If a person does not keep pace with their companions, perhaps it is because they hear a different drummer. Let them step to the music which they hear"*

*(Thoreau, 1854)*

# TREATMENT



# TREATMENT



Bronfenbrenner (1979)



## **TREATMENT**

### **BASICS**

- Well-Child Visits**
- Hearing, Vision, and Dental**
- Sleep Problems**
- Eating and GI Problems**
- Parent Education**
- Early Intervention**
- Social Skills Training**
- Educational Access**



## **TREATMENT**

### **BASICS**

- Individual/Family Therapy**
- Occupational/Physical Therapy**
- Speech-Language Therapy**
- Medication**
- Imaging if Regression or Signs of Seizure-Like Activity**
- Technology**
  - Low Tech - Pictures, Visual Schedules, Organizers**
  - High Tech - Apps – Time Timers, Visual Programs**



## TREATMENT

### BASICS

Instructions provided in an organized manner

Consistency and routine

Allowing sufficient time

Isolate information to help with attention

Structured environment

Visuals

Limit verbal information, use short simple language



## TREATMENT

### Early Intervention

Capitalize on early brain plasticity

Direct the development of social behaviors

Intervene before adverse behaviors are reinforced

Promote neural connectivity through multi-sensory teaching approaches



# TREATMENT

- **Autism-Specific Treatment and Providers:**
  - **Applied Behavior Analysis**
  - **Behavioral Psychology**
  - **Positive Behavior Supports**
  - **Developmental Psychology**
  - **Special Education**
  - **Speech/Language Pathology**

# TREATMENT

## AUTISM SPEAKS

**Special Needs Financial Planning**  
Resources to help you and your family plan for the future.

- Special Needs Financial Planning Tool Kit
- Special Needs Financial Planning App
- Special Needs Financial Planning Checklist

**Safety**  
Resources to help keep you and your family safe.

- Safety in the Community
- Safety in the Home
- Wandering Prevention

**Health and Wellness**  
Resources to promote a healthy lifestyle for you and your family.

- Sleep
- Exercise
- Nutrition

**School Resources**  
Resources to help you and your family plan for the future.

- Individualized Education Program (IEP) Summary, Process and Practical Tips
- School Community Tool Kit
- Special Needs Financial Planning Checklist

**Behavior Challenges**  
Resources to help you and your family plan for the future.

- Challenging Behaviors: A Parent's Guide to Understanding, Managing, and Preventing
- Introduction to Behavioral Health Engagement
- A Parent's Guide to Applied Behavior Analysis

**Medical Resources**  
Resources to assist people with autism and additional medical needs.

- Medication Decision Aid
- Managing Co-occurring Conditions
- Preparing for an EEG Exam

[www.autismspeaks.org](http://www.autismspeaks.org)

# TREATMENT

## AUTISM SPEAKS

The screenshot displays the Autism Speaks website with the following resource categories:

- Adults** (Resources to help support adulthood with autism):
  - Employment: Tips and tools as you search for a job that is right for you.
  - Housing & Residential Supports: Resources to help with the search for housing.
  - To If Autism and If So, What Next?: Support for adults recently diagnosed with autism.
- Family Support** (Resources to support family members of people with autism):
  - A Parent's Guide to Autism: A tool to support parents after their child is diagnosed with autism.
  - A Grandparent's Guide to Autism: Information and helpful strategies for grandparents in the early days and beyond.
  - A Sibling's Guide to Autism: A helpful tool for brothers and sisters of children with autism.
- Support in the Community** (Resources to help support community integration):
  - Recreation: Information about the requirements of recreation activities.
  - Travel: Tips to help you and your family overcome travel challenges.
  - Going Out to Eat: Strategies to make dining at a restaurant a success.
- Miscellaneous** (A mix of other helpful resources):
  - Tips for Successful Interviews: Help your child prepare for a harvest.
  - Natural Disasters: Information for before, after and during natural disasters.
  - Grief and Bereavement Support: Resources to help support you or your child while experiencing grief.

[www.autismspeaks.org](http://www.autismspeaks.org)

# TREATMENT

- **National Standards Project of the National Autism Center (2015) Fourteen Established Interventions**
  - Behavioral Interventions
  - Cognitive Behavioral Intervention Package
  - Comprehensive Behavioral Treatment for Young Children
  - Language Training (Production)
  - Modeling
  - Natural Teaching Strategies
  - Parent Training

<https://www.nationalautismcenter.org/resources/>



## TREATMENT

- **National Standards Project of the National Autism Center (2015) Fourteen Established Interventions**
  - Peer Training Package
  - Pivotal Response Training
  - Schedules
  - Scripting
  - Self-Management
  - Social Skills Package
  - Story-based Intervention

<https://www.nationalautismcenter.org/resources/>



## TREATMENT

### **Functional Behavioral Assessment**

**Autism-Focused Intervention Resources and Modules  
Learning basic knowledge about Functional Behavior  
Assessment (FBA)**

**Applying FBA in activity-based scenarios that promote real-world application.**

AFIRM (2015)  
<http://afirm.fpg.unc.edu/>



## TREATMENT

### **1. Conduct an FBA including:**

1. Interview with the child and those who work with them
2. Direct observation
3. Conduct functional behavioral analysis in order to conduct experimentally manipulated observations

### **2. Functional behavioral assessment should include data on:**

1. Child's strengths and weaknesses
2. Problematic behavior
3. Acceptable alternative behavior
4. Immediate antecedents
5. Immediate and delayed consequences

### **3. Determine behavior goals to increase positive behavior and decrease unwanted behavior**



## TREATMENT

### **1. Use assessment results from FBA and testing in order to determine how to use strategies and consequences to promote desirable behavior**

### **2. Determine the skills that need to be taught**

### **3. Create a structured daily schedule**

### **4. Include strategies such as:**

1. Visual schedules
2. Verbal or physical prompting
3. Adjusting task demands
4. Providing choice



## TREATMENT

### The SCERTS Model

**Social Communication**  
**Emotional Regulation**  
**Transactional Support**

**Research-based educational approach and multidisciplinary framework that addresses the core challenges faced by those with ASD.**

[www.scerts.com](http://www.scerts.com)



## TREATMENT

**University of North Carolina TEACCH Autism Program**  
**Comprehensive educational approach utilizing an adapted environment – “Structured TEACCHING”**

**Understanding the culture of autism**

**Developing an individualized person- and family-centered plan for each client or student, rather than using a standard curriculum**

**Structuring the physical environment**

**Using visual supports to make the sequence of daily activities predictable and understandable**

**Using visual supports to make individual tasks understandable**

<https://www.teacch.com/>



## TREATMENT

### Complimentary Medicine

GI-based treatments originated in early studies indicating association between GI difficulties and ASD symptoms (Volker, 2011)

#### Secretin and GFCF diets

- Early positive impact on reducing symptoms but later studies found no significant treatment effect (Zimmer & Malloy, 2007)

#### Auditory Integration Training

- Modulated and filtered music through earphones to reduce noise sensitivity (Baranek, 2002)

#### Sensory Integration

- Provides a series of sensory experiences thought to improve modulation, organization, and integration of environmental information (Zimmer & Malloy, 2007)



## TREATMENT

### Individuals with Disabilities Education Act

“Infants and toddlers with disabilities (birth-2) and their families receive early intervention services under IDEA Part C. Children and youth (ages 3-21) receive special education and related services under IDEA Part B.”

State requirements vary

IDEA (2004)  
<http://idea.ed.gov/>



## TREATMENT

### ND Special Education State Guidelines

#### Guidelines for Serving Students with Autism Spectrum Disorders in Educational Settings

“A student with ASD who is found eligible for special education services will have an IEP developed that addresses the specially designed instruction they will need to access and benefit from the general education curriculum.”

<https://www.nd.gov/dpi/>

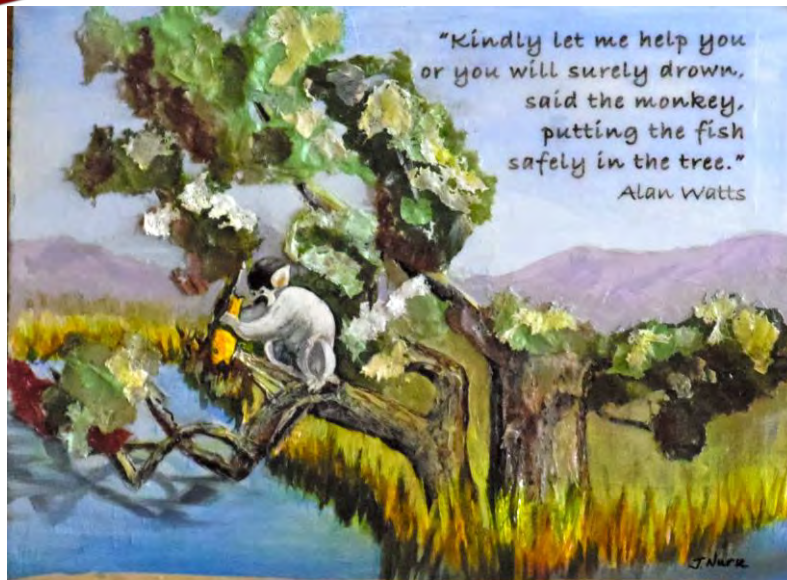


## TREATMENT

### School Accommodations: Individualized Education Plan 504 Plan

- Sensory-Motor functioning
- Physical impairments
- Sensory Integration difficulty
- Communication Impairments
- Cognitive Impairments
- Academic/Learning Difficulties
- Fatigue
- Medical Issues
- Social-Emotional Difficulties
- Behavior Difficulties





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## REFERENCES

- Autism Focused Intervention Resources and Modules. (AFIRM, 2015).  
<http://afirm.fpg.unc.edu/>
- Autism Speaks. (2020). [www.autismspeaks.org](http://www.autismspeaks.org).
- Baranek, G. T. (2002). Efficacy of sensory and motor interventions for children with autism. *Journal of Autism and Developmental Disorders*, 32, 397-422.
- Bronfenbrenner (1979). *The Ecology of Human Development: Experiments by Nature and Design*. Cambridge, MA: Harvard University Press.
- Individuals with Disabilities Education Act (IDEA, 2004). <http://idea.ed.gov/>
- National Standards Project of the National Autism Center (2015). Fourteen Established Interventions. (<https://www.nationalautismcenter.org/autism/autism-interventions/>)
- National Autism Center at May Institute. (2015).  
<https://www.nationalautismcenter.org/resources>.



## REFERENCES

- North Dakota Department of Public Instruction. (2020). <https://www.nd.gov/dpi/>
- Social Communication Emotional Regulation Transactional Support. (2020).  
[www.scerts.com](http://www.scerts.com)
- The University of North Carolina TEACCH Autism Program. (2020).  
<https://www.teacch.com/>
- Thoreau, H. D. (1854). *Walden or, Life in the Woods*.
- Volker, M. A., Thomeer, M. L., & Lopata, C. (2011). Pervasive developmental disorders. In A. Davis (Ed.). *Handbook of Pediatric Neuropsychology*. Springer Publishing, New York: NY.
- Zimmer, M., & Malloy, C. A. (2007). Complementary and alternative therapies for autism. In E. Hollander & E. Anagnostou (Eds.). *Clinical manual for the treatment of autism* (pp. 259-288). Washington D. C.: American Psychiatric Publishing.