ECHO Idaho: Behavioral Health in Primary Care

Autism Spectrum Disorders
April 17, 2019
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#autismandmindfulness
Learning Objectives

• Describe clinical manifestations of Autism Spectrum Disorders (ASD)

• Discuss role of multi-disciplinary team and technology in comprehensive assessment and management of ASD

• Describe psychosocial-environmental-nutritional-sensory-behavioral interventions and pharmacologic interventions to treat behavioral disturbances and primary mental health disorders in individuals with ASD
Acknowledgments

• I am grateful for the national and international expert in Autism research, Dr. Robert Hendren DO, Professor of Psychiatry and Behavioral Sciences, University of California San Francisco for generously sharing his slides and providing guidance. I have used information from his slides for my presentation.
Pre-Test

• Question 1: All of the following are thought to be etiologic factors for Autism Spectrum Disorders except:
  – (a) Genetics
  – (b) Prenatal complications
  – (c) Restricted development
  – (d) Faulty parenting
Pre-Test

• Question 2: The prevalence of ASD in 8-year old children in the U.S. is thought to be:
  – (a) 1 in 230
  – (b) 1 in 115
  – (c) 1 in 59
  – (d) 1 in 40
Pre-Test

• Question 3: What is the ratio of prevalence of ASD in males and females?
  – (a) 4 males to 1 female
  – (b) 2 males to 1 female
  – (c) The prevalence is equal in males and females
  – (d) 2 females to 1 male
Pre-Test

• Question 4: Which of the following two are key symptoms criteria for diagnosis of ASD?
  – (a) persistent deficits in social communication and social interaction; persistent anxiety symptoms
  – (b) restricted, repetitive patterns of behaviors; persistent irritability
  – (c) persistent deficits in social communication and social interactions; restricted, repetitive patterns of behaviors
  – (d) persistent anxiety; persistent irritability
Pre-Test

• Question 5: Which of the following is currently the gold standard tool for screening ASD in toddlers?
  – (a) M-CHAT
  – (b) ADOS
  – (c) Rapid Interactive Test for Autism in Toddlers
  – (d) There is no gold standard tool for screening ASD in toddlers.
Pre-Test

• Question 6: Which of the following is currently the gold standard tool for diagnosis of ASD in children?
  – (a) M-CHAT
  – (b) ADOS
  – (c) Rapid Interactive Test for Autism in Toddlers
  – (d) There is no gold standard tool for diagnosing ASD in children.
Pre-Test

• Question 7: What is the earliest age that ASD can be reliably diagnosed?
  – (a) 1-year
  – (b) 2-years
  – (c) 3-years
  – (d) 4-years
Pre-Test

• Question 8: Which of the following two are the most common co-morbid psychiatric disorders in individuals with ASD?
  – (a) Intellectual disability and OCD
  – (b) ADHD and Bipolar disorder
  – (c) Intellectual disability and ADHD
  – (d) ADHD and OCD
Pre-Test

• Question 9: Which of the following best describes Applied Behavior Analysis?
  – (a) It is the practice of using the principles of behavior to produce socially meaningful change.
  – (b) It is a type of cognitive behavioral therapy for individuals with ASD that is supported by randomized controlled trials.
  – (c) It is generally provided by psychiatrists but can also be provided by nurse practitioners and physician assistants.
  – (d) It is an experimental treatment that needs more research before it can be recommended for individuals with ASD.
Pre-Test

• Question 10: Which of the following supplements have the most high quality research to support it’s use in ASD?
  – (a) Melatonin for insomnia
  – (b) N-Acetyl Cysteine for tamper tantrums
  – (c) SAM-e for depression
  – (d) Probiotics for gastrointestinal distress
Question 11: Which two medications are approved by the U.S. Food and Drug Administration for the management of ASD with irritability?

- (a) oxytocin and vasopressin
- (b) sertraline and fluoxetine
- (c) risperidone and aripiprazole
- (d) methylphenidate and atomoxetine
Stigma, Bias, Prejudice

• In research settings, in clinical practice and in general, there is considerable stigma, bias, and prejudice faced by individuals with ASD.
• Even when they get the answer right or perform better in research setting, many well-educated and respected professionals interpret the findings as something “wrong” with the individual with ASD rather than defective functioning of individuals without ASD (the so-called “normal”).

— Liz Pellicano PhD, Professor of Autism Education and Director, Center for Research in Autism and Education (CARE), University College Institute of Education, University College London.
https://www.youtube.com/watch?v=VGR6fDeR--0
Harnessing the seven forces of wellness and healing

• Mindfulness
• Narratives
• Biomedical
• Creativity
• Spirituality
• Community
• Nature
Case

• SS was a 15-month old boy. Parents reported: SS would not engage in pretend play; rarely responded to his name; preoccupied with things that spin. On exam: poor eye contact, preoccupied with rolling and chasing a ball, did not respond to examiner’s prompt to include him in the game.

• At age 18-months, given diagnosis of ASD.

• Rx: Early intensive behavioral intervention (EIBI), speech and language therapy, augmentative communication, occupational therapy, special education with 1:1 paraprofessional.

• Outcome: Improved receptive language, well adapted at home, non-aggressive, responsive to parents’ requests.

Conceptualizing ASD

• Neurodevelopmental disorder (traditional view).

• Whole-body disorder (new view: Dr. Robert Hendren and other top experts).
  – Intestinal inflammation
  – Digestive enzyme abnormalities
  – Metabolic impairment
  – Oxidative stress
  – Mitochondrial dysfunction
  – Immune-system dysfunction (deficiency, hypersensitivity, autoimmunity)

Etiology of ASD

• First hit: Genetics
• Second hit: Environment (Rx: High quality prenatal and postnatal care [Universal Prevention Strategies / Primary Prevention])
• Third hit: Restricted development
• **NOTE: FAULTY PARENTING DOES NOT CAUSE ASD**

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Neurobiology of ASD

- Deficient oxytocin function.
- Vasopressin dysfunction (vasopressin antagonists in Phase 3 research study).
- Social reward system impaired.
- Impaired TOM (Theory of Mind neurocircuits [mentalizing neurocircuits]), mirror neuron system, executive function, and weak central coherence.

Gut Microbiota

• Follow up of 18 research participants over two years after treatment with fecal transplant: improvement of autism-related symptoms and gastrointestinal symptoms persisted; important changes in gut microbiota persisted (increased bacterial diversity, relative abundance of Bifidobacteria and Prevotella.

Oral Microbiome

- Microbes in the mouths of children with ASD differ from those of other children.
- These microbial changes resulted in increased lysine degradation, which may lead to increased production of neurotransmitter glutamate, and increased energy metabolism.

Neuroimaging

- Atypical trajectory of brain maturation
- This gives rise to differences in neuroanatomy, functioning, and connectivity.
- These in turn mediate autistic symptoms and traits

Functional Neuroimaging

- Adolescents with ASD showed atypically increased functional connectivity involving the mentalizing and mirror neuron systems.

Functional Neuroimaging

- Increased functional connectivity between subcortical and cortical resting-state networks (primary sensory cortex networks) have been found in individuals with ASD and may explain increased occurrence of hyposensitivity and or hypersensitivity and of difficulties in top-down regulation of behavior.

Spectrum of Autism

• ASD – Mild, Moderate, Severe. With and without Intellectual disability

• Replaces Pervasive Developmental Disorders

• Asperger’s disorder is ASD without Intellectual Disability (aka High functioning Autism)

• Social Communication Disorder

• Autism traits
  
Prevalence

• Approximately one in 59 school age children meet the criteria for ASD.
• Autism has increased in incidence by at least 700% since 1996.

Genetics

• One of the most heritable psychiatric disorders. Twin concordance rates: 77%-95%.
• Referral to a clinical geneticist for genetics evaluation may be helpful.
• Chromosomal microarray and DNA testing for fragile X syndrome for male patients may be considered.
• At least nine monogenic (single gene) “ Syndromic Autism” have been identified (e.g., Fragile X syndrome, Angelman syndrome).

Genetics

• Children with older sibling diagnosed with ADHD is at increased risk of both ADHD and ASD.
• Children with older sibling diagnosed with ASD are at increased risk of both ASD and ADHD.

Clinical Manifestations

• Symptoms typically visible between 12 and 24 months (e.g., delayed language patterns, unusual communication patterns, lack of social interest, atypical social interactions, odd patterns of play).

• Median age of diagnosis is after age 4 years.

• Four times more common in males compared to females.

• High variability in symptoms from one person to another.

• Many individuals show global improvement in adolescence.

Clinical Manifestations

- Social impairment is the hallmark symptom – social motivation/drive, social cognition, social communication

- Restricted and repetitive behaviors and interests

- Sensory sensitivities (hypo and hyper)

- Behavioral disturbances (e.g., anxiety related to change, intense and prolonged outbursts/temper tantrums, self-injurious behaviors, aggression-irritability)

Social cognition deficits

- Adults with ASD showed large impairments in theory of mind and emotion perception and processing cognitive domains.
- These findings may assist in the identification of targets for cognitive interventions.

Repetitive Behaviors

- Lower-order behaviors: lining up toys, spinning objects
- Higher-order behaviors: insistence on sameness (e.g., same routines, rituals)

Restricted Interests

- Narrow interests that may not serve any function
- Example: preoccupation with trains (make, model, schedule)

Reliability of early diagnosis

- Diagnosis from as young as 2 years of age is relatively stable.
- Requires direct clinician-to-child observation and generally takes several hours.
- The judgment of experienced clinicians is more reliable than that of existing diagnostic instruments for this age group.

Artificial Intelligence for Early Diagnosis?

• Feature tagging of home videos for machine learning classification of autism can yield accurate outcomes in short time frames, using mobile devices.

Questions to ask Parents

• When did you first become worried about the way your child is communicating?
• Does your child have unusual behaviors?
• Does your child get upset if you change their routines unexpectedly? How do they show this distress?
• Is your child interested in what other children do? Does your child play with toys appropriately?.

Screening Tools

• The American Academy of Pediatrics recommends universal screening for Autism features between ages 18 and 24 months.
• Modified Checklist for Autism in Toddlers (M-CHAT) is recommended for screening.
• Regular communication with parents about developmental concerns should start by age 6 months.
• Rapid Interactive (Screening) Test for Autism in Toddlers can be done in addition to M-CHAT
• Repetitive and Stereotyped Movements Scales

Diagnosis

• The Autism Diagnostic Observation Schedule (ADOS) is the gold standard for diagnosis (to characterize the presence and severity of Autism features)
• Mullen Scales for Early Learning may be done additionally.
• Bayley Scales of Infant Development may be done additionally.
• Stanford-Binet Intelligence Scales – 5th Edition may be considered in children 3-years and older

Comprehensive Diagnostic Evaluation

- Medical evaluation (includes co-ordination of multidisciplinary assessment) by Primary Care Provider, needs to be an appropriately extensive assessment
- Specialist assessment (Child psychiatrist, Developmental pediatrician, Pediatric neuropsychologist, some pediatricians, some psychiatrists)
- Neuropsychological assessment
- Functional behavior assessment (FBA)
- Psychiatric evaluation
- Use of technology (e.g., telemedicine)

Testing

• Metabolic testing (liver, kidneys, electrolytes, vitamin levels, micronutrient levels)
• Genetic testing
• EEG (overnight or long-term EEG)
• Evoked response testing (to address hearing concerns)
• Testing for inborn errors of metabolism
• Testing for heavy metal toxicity
• Sleep study
• Note: Routine brain imaging has no role currently.

Medical Assessment: The Top 7

- Allergies (e.g., food, allergic rhinitis) and food sensitivities
- Gastrointestinal problems (e.g., constipation, diarrhea, GERD, pancreatic enzyme deficiencies)
- Seizures (as many as one in three)
- Pain (e.g., headache, migraine)
- Eczema
- Ear and respiratory infections
- TBI-related
- Macro and Micro-nutrient deficiencies due to restricted diets

Medical Management

• Pain sensitivity and perception may be less in some individuals with ASD, making it difficult to localize problems (e.g., inflammation, injury, infection).
• Food diary may be helpful in identifying food allergies and food sensitivities.
• Migraine headaches often emerge in early to middle adolescence.
• 20% of older individuals with ASD due to Fragile X syndrome may develop Parkinson’s disease!

Food Allergies

- At least 10.8% (26 million) of US adults have food allergies (e.g., allergies to shellfish, milk, peanut, tree nuts).
- 51.1% have severe food allergies.
- 45.3% have allergies to multiple foods
- 48% develop food allergies as an adult
- 38.3% have gone to ED at least once for food-allergy related symptoms.

Gastrointestinal symptoms

- Constipation 22%
- Diarrhea 13%
- Any GI symptom 46.8% (includes abdominal pain, nausea, vomiting).

Success Story

• MS was a 5-year old boy with ASD. He was brought for assessment of new onset of self-injurious behaviors (e.g., hitting his jaw, jumping from heights). He was found to have bilateral ear infection that responded to antibiotics. His SIBs were understood as his attempts to unblock his ear.
Psychiatric Assessment: The Big 12

- Medical causes
- Medication induced behavioral problems
- ADHD (one in three)
- Sleep disorders
- ASD related persistent aggression and or self-injurious behaviors
- ASD with persistent anxiety
- Major Depression
- Psychotic disorders
- Bipolar disorder
- OCD
- Personality disorder (e.g., Schizotypal personality disorder)
- Trauma-related disorders

Mental Health Co-morbidity

- 53% of children age 4-years with ASD and 69% of children age 8-years with ASD have four or more co-occurring medical and or mental health conditions (Soke et al 2018).
- 32% of children with ASD have intellectual disability; 25% have borderline intelligence and 44% have average or above average intellectual ability (CDC 2016).

Challenging Behaviors

- Approximately 70% of school-age children meet criteria for at least 1 non-ASD co-occurring psychiatric disorder.
- Children with ASD represent one in eight children in psychiatrically referred population.
- The primary presenting problems are challenging behaviors and more than 80% of these children meet criteria for ADHD and or Oppositional Defiant Disorder.

- Brookman-Frazee et al. Effectiveness of training therapists to deliver an individualized mental health intervention for children with ASD in publicly funded mental health services. JAMA Psychiatry March 6th, 2019. Researchers from UCSD
Sleep disturbances

- Sleep disorders are more than twice as common in children with ASD compared to children without ASD (Reynolds et al 2019).
- 30% of children with ASD had difficulties with sleep onset and 43% with difficulties in sleep maintenance (Trickett et al 2018).
- 50-80% of children with ASD have sleep difficulties (Veatch et al 2015).

Self-Injurious Behaviors

- SIB prevalence averaged 27.7% in children with ASD.

Self-Injurious Behaviors and Ideation

• Adults with ASD are twice as likely to be hospitalized for self-harm.
• 28% of children with ASD experience Self-injurious behaviors (SIB) compared to 8%.
• 13% of hospitalizations of adults with ASD are secondary to SIB compared to 6%.
• ASD with SIB have longer stays (average 2 days) compared to controls - incurring higher costs.
• Individuals age 50 and older more likely to be hospitalized for SIB compared to controls.

Suicide

- High-functioning adolescents and adults with ASD (Asperger’s syndrome) are at high risk of contemplating suicide (up to 66% in specialty clinics).

Heartbreaking stories

• “Once I told my school counselor I had taken pills to kill myself, she wouldn’t let me leave. Then the police came, put handcuffs on me and took me out of the school in front of all the other kids. They took me to the emergency room where they kept me for 12 hours. Then they sent me to the hospital. It was awful. One thing I learned was never tell anyone if you are thinking of killing yourself.”

ASD and Depression

• Young adults with ASD have more than 2-fold risk of a depression diagnosis.
• Risk of depression is higher in individuals with ASD without Intellectual disability than in individuals with ASD and intellectual disability.

Obsessive Compulsive Symptoms

• Cleaning
• Checking
• Counting
• Yale-Brown Obsessive Compulsive Scale
• Individuals with ASD have a 2-fold higher risk of developing OCD
• Individuals with OCD have higher prevalence of Autism traits or Disorder

OCD

- OCD is more prevalent in individuals with high-functioning ASD (Asperger’s syndrome) compared to controls.
- Cognitive Behavior Therapy may be useful.

Bipolar Disorder

- Around 7% of individuals with ASD may have Bipolar disorder (higher than general population)
- Many individuals with Bipolar disorder have Autism traits or Disorder but this is under-recognized.
- Children with ASD and Bipolar disorder have higher rates of ADHD and OCD.

ASD and Bipolar Disorder

• A diagnosis of ASD is associated with a substantially increased risk of non-affective psychotic disorder and Bipolar disorder.

ASD and Schizophrenia

- Both ASD and Schizophrenia share multiple etiologies, phenotypic feature similarities, and risk factors, and reported to co-occur at elevated levels.

Trauma

• Over 50% of youths had experienced at least one trauma.
• Nearly one half had clinical-level mood symptomatology.
• 90% of youth with clinical-level mood symptomatology had at least one trauma compared to 40% without clinical-level mood symptomatology.

Sexual orientation

• Individuals with ASD report increased homosexuality, bisexuality, and asexuality.

Treatment

- Comprehensive approach includes education (of ASD symptoms and course, local and web resources), support and guidance of parents, addressing physical and mental co-morbidities.
- Interventions to improve function (e.g., Applied Behavioral Analysis, speech and language therapy, occupational therapy).
- Nutritional therapies.
- Complementary and alternative medicine approaches.

Multidisciplinary Interventions

• Education and training of family (parents) and professional caregivers/care partners
• Occupational therapy: Sensory integration strategies
• Speech and language pathologists: Communication strategies including PECS (Picture Exchange Communication System)
• Dietician: Nutritional approaches
• Nidotherapy (modifying environment to match the strengths of the person with ASD with four key ingredients: structure, predictability, sameness, continuous activity programming [minimize surprises])
• Social skills group

High-Tech Approaches

- Approaches using screen-based media (e.g., tablets and smartphones) to capitalize on visual perception and visual search strengths
- Telemedicine and EMR
- Behavior Imaging (https://behaviorimaging.com)
- Technology-based augmentative communication devices and strategies (including speech generating devices using apps)
- Monitoring technology (e.g., GPS, medical alert)
- Access to healthcare provider notes and their input
- Virtual reality based approaches
- Other (e.g., video modeling)

- https://www.healthychildren.org/English/health-issues/conditions/Autism/Pages/default.aspx
Applied Behavior Analysis (ABA)

- Under the supervision of Board Certified Behavior Analysts.
- Today’s ABA programs are very different from those 20 years ago. ABA is now much more flexible, functional and fun for the child.
- It can address every behavior relevant to the child (both excesses and deficits) and Behavior Analysts are not distracted by the many theories of the causes of ASD.

- Behavior Analysis Certification Board. https://www.bacb.com/bcba/
- Association of Behavior Analysis International https://www.abainternational.org/welcome.aspx
EIBI

• Providing timely access to EIBI (early intensive behavioral intervention) optimizes outcomes, improves future independence, and lessens costs from governmental and societal perspectives.
• More than 20 hours per week, more than $30,000 per year per child.

The Early Start Denver Model

- A variant of EIBI that is supported by high quality research.
- A separate training “manual” for parents is available, An Early Start for Your Child with Autism.

Sexual education

- Individuals with ASD have greater difficulty adhering to privacy norms, engaging in less appropriate sexual behavior and receive less formal and informal sexual health education.

Mental Health Interventions

- AIM HI (An Individualized Mental Health Intervention)
- Therapists were trained: Training and consultation process took 6 months
  - Introductory workshop
  - Eleven structured consultation meetings as the therapist delivers AIM HI to a client
- Case-specific performance feedback provided to trainees.
- Significant reductions in problem behaviors occurred in the intervention group.

- Brookman-Frazee et al. Effectiveness of training therapists to deliver an individualized mental health intervention for children with ASD in publicly funded mental health services. JAMA Psychiatry March 6th, 2019. Researchers from UCSD
Success stories

• DP was diagnosed with ASD at age 8 years.
• He was enrolled in group-based social skills training, which gradually helped to resolve his more stigmatizing behaviors (e.g., blurting out inappropriate comments to peers which DP thought was funny).
• He received psychiatric care for an interval during adolescence when he became depressed.
• He is now enrolled in his third year of undergraduate studies at a college that provides social support to students on the autism spectrum.

Success stories

• “The support I receive is very relevant....Due to my condition, I was in a position where I thought the idea of killing myself was better than carrying on.”

Improving Outcomes

• “In many cases, improvement of autistic symptoms is achieved by a combination of nutritional recommendations, prescription medications, and addressing the underlying medical conditions seen in these individuals.”

• “I hope that by thinking of making the body healthier, we can help kids have the very best outcomes.”

— Robert Hendren DO, Professor, Department of Child and Adolescent psychiatry, University of California San Francisco. Nevada Psychiatric Association Annual Psychopharmacology Conference, 2019, Las Vegas Nevada.
Complementary and Integrative Approaches

- Melatonin
- Omega 3
- N Acetyl Cysteine
- Methyl B12
- Sulforaphane
- Pancreatic digestive enzymes and Probiotics
- Diets
- Massage
- Meditation
- Exercise
- Sensorimotor enrichment
- Music therapy
- Animal-assisted / Equine therapy
- Neurofeedback

Melatonin

• Best studied supplement in individuals with ASD
• Primarily given for insomnia
• Dose tested in studies: 1-9 mg at bedtime
• Long-term use is not recommended.

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N-Acetyl Cysteine

- Low quality studies have found some benefits (reductions in disruptive behaviors, skin picking behaviors, trichotillomania)
- Dose: 600-1200mg twice daily
- May cause increased agitation and irritability in some.

Probiotics and Digestive enzymes

• Anecdotal reports of some benefits
• May be considered to treat gastrointestinal symptoms (and these symptoms may manifest as anxiety, irritability, physical aggression and self-injurious behaviors)

Omega-3 fatty acids

- Low quality studies indicate that a subset of individuals with ASD may benefit from Omega 3 fatty acid supplementation.
- Dose tested in studies: around 750mg of DHA and 750mg of EPA

Methyl B12

• Low quality studies have found some benefits
• Dose: subcutaneous injection of methyl B12; 75 micrograms / kg

CFSFGF Diets: Anecdotal evidence

• Dairy/Casein free diet (CF) (may need supplements like calcium and magnesium as dairy is a source of these elements in many individuals)
• Soy free (SF) diet
• Gluten free (GF) diet (may also need a variety of supplements to compensate; will make it difficult to diagnose Celiac disease [Gluten sensitive enteropathy])
• Routine use of CFSFGF diet NOT recommended
• Guidance from a dietician is recommended if parents want to give these diets a try.

Yoga-Meditation

- Low quality evidence support benefits of manualized daily yoga program

Exercise

• Anecdotal reports indicate that horse-back riding and martial arts interventions may produce some benefits.

Music therapy

- Low quality studies indicate that music therapy may produce some benefits (e.g., improved social skills).

Animal-assisted/Equine therapy

• Low quality studies indicate that animal-assisted/equine therapy may produce some benefits.

Cannabidiol (CBD)

• Lack of high quality evidence to support its use.
• Anecdotal reports from some parents that CBD was helpful in relieving anxiety and improving sleep.
Therapies to Avoid

- Stem cell therapy
- Hyperbaric oxygen

Pharmacological Interventions

• Currently, there is no medication that is approved by the U.S. Food and Drug Administration for the treatment of core deficits of ASD.
• Unproven therapies (e.g., stem cell therapies) may carry substantial harm (emotional, physical health, financial).

Psychiatric Medications

• ADHD medications (stimulants [methylphenidate has the best data], atomoxetine, clonidine, guanfacine)
• Aripiprazole and risperidone approved by FDA for treatment of ASD related persistent aggression and or self-injurious behaviors
• Appropriate psychiatric medications for co-morbid major mental illnesses (e.g., True moderate to severe major depression, True Bipolar disorder, True Schizophrenia).

SSRIs

- Often used to treat co-morbid Major Depression, OCD, disabling anxiety disorders in individuals with ASD.
- SSRIs associated with activation syndrome (agitation, insomnia, increased anxiety)
- Start low and increase slowly.

Variable Trajectories

- **Autistic symptoms:**
  - Group 1 (11.4%): less severe symptoms, improving trajectory
  - Group 2 (88.6%): more severe symptoms, stable trajectory

- **Adaptive functioning:**
  - Group 1 (29.2%): lower functioning, worsening trajectory
  - Group 2 (49.9%): moderate functioning, stable trajectory
  - Group 3 (20.9%): higher functioning, improving trajectory

Undertreatment Prevalence

- Almost 30% of children with ASD did not receive behavioral or medication treatment.

Reason to hope

• At least some forms of ASD involve time-specific developmental deficits as well as ongoing alterations in CNS functioning that might present targets for treatment, even well after the first emergence of symptoms.

Reason to hope

- Although many high-confidence ASD risk genes are most highly expressed during fetal brain development, a group of risk genes is involved in neuronal signaling, the expression of which coincides with neuronal maturation, providing another potential postnatal treatment window.

Key Points

• Early diagnosis key to achieving optimal outcomes
• Multidisciplinary team using telemedicine key to achieving optimal outcomes
• BCBAs and Psychiatrists working together with Primary Care Providers is key to minimizing psychiatric medication use and improving mental health outcomes
• Support from local community, state and federal government is key to achieving optimal outcomes.
References and Resources

- Upcoming Autism Mental Health conference on November 2, 2019 hosted by University of Idaho and partners.
- https://www.healthychildren.org/English/health-issues/conditions/Autism/Pages/default.aspx
- Autism Research Institute https://www.autism.com
References and Resources

- Autism Speaks [https://www.autismspeaks.org](https://www.autismspeaks.org) 100 Day Kit: A tool kit to assist families in getting the critical information they need in the first 100 days after an autism diagnosis
- American Psychiatric Association
- [https://www.psychiatry.org/patients-families/autism](https://www.psychiatry.org/patients-families/autism)
Post-Test

• Question 1: All of the following are thought to be risk factors for development of ASD except:
  – (a) Genetics
  – (b) Prenatal complications
  – (c) Restricted development
  – (d) Faulty parenting

  – Answer: d. Faulty parenting is NOT a risk factor for development of ASD.
Post-Test

• Question 2: The prevalence of ASD in 8-year old children in the U.S. is thought to be:
  — (a) 1 in 230
  — (b) 1 in 115
  — (c) 1 in 59
  — (d) 1 in 40

  — Answer: c. The latest research indicates the prevalence of ASD in 8-year old children in the U.S. is around 1 in 59.
Post-Test

• Question 3: Which is thought to be the ratio of prevalence of ASD in males and females?
  – (a) 4 males to 1 female
  – (b) 2 males to 1 female
  – (c) The prevalence is equal in males and females
  – (d) 2 females to 1 male

  – Answer: a. Most recent research indicates that male to female ratio for prevalence of ASD is 4:1.
Post-Test

• Question 4: Which of the following two are key symptoms criteria for diagnosis of ASD?
  – (a) persistent deficits in social communication and social interaction and persistent anxiety symptoms
  – (b) restricted, repetitive patterns of behaviors and irritability
  – (c) persistent deficits in social communication and social interactions and restricted, repetitive patterns of behaviors
  – (d) persistent anxiety and irritability symptoms

  – Answer: c.
Post-Test

• Question 5: Which of the following is currently the gold standard tool for screening ASD in toddlers?
  – (a) M-CHAT
  – (b) ADOS
  – (c) Rapid Interactive Test for Autism in Toddlers
  – (d) There is no gold standard tool for screening ASD in toddlers.

  – Answer: a. M-CHAT (Modified Checklist for Autism in Toddlers) is the gold standard tool for screening ASD in toddlers.
Question 6: Which of the following is currently the gold standard tool for diagnosis of ASD in children?

- (a) M-CHAT
- (b) ADOS
- (c) Rapid Interactive Test for Autism in Toddlers
- (d) There is no gold standard tool for diagnosing ASD in children.

Answer: b. ADOS (Autism Diagnostic Observation Scale) is currently the gold standard tool for diagnosing ASD in children.
Post-Test

• Question 7: What is the earliest age that ASD can be reliably diagnosed?
  – (a) 1-year
  – (b) 2-years
  – (c) 3-years
  – (d) 4-years

  – Answer: b. At 2-years of age, ASD can be reliably diagnosed.
Post-Test

• Question 8: Which of the following two most common co-morbid psychiatric disorders in individuals with ASD?
  – (a) Intellectual disability and OCD
  – (b) ADHD and Bipolar disorder
  – (c) Intellectual disability and ADHD
  – (d) ADHD and OCD

  – Answer: c
Post-Test

• Question 9: Which of the following best describes Applied Behavioral Analysis?
  – (a) It is the practice of using the principles of behavior to produce socially meaningful change.
  – (b) It is a type of cognitive behavioral therapy for individuals with ASD that is supported by randomized controlled trials.
  – (c) It is generally provided by psychiatrists but can also be provided by nurse practitioners and physician assistants.
  – (d) It is an experimental treatment that needs more research before it can be recommended for individuals with ASD.

  — Answer: a
Post-Test

• Question 10: Which of the following supplements have the most high quality research to support it’s use in ASD?
  – (a) Melatonin for insomnia
  – (b) N-Acetyl Cysteine for tamper tantrums
  – (c) SAM-e for depression
  – (d) Probiotics for gastrointestinal distress

  – Answer: a. Melatonin has been studied in several randomized controlled trials and found to be useful for treatment of insomnia in individuals with ASD.
Post-Test

Question 11: Which two medications are approved by the U.S. Food and Drug Administration for the management of ASD with irritability?
- (a) oxytocin and vasopressin
- (b) sertraline and fluoxetine
- (c) risperidone and aripiprazole
- (d) methylphenidate and atomoxetine

Answer: c. Risperidone and aripiprazole is approved by the U.S. FDA for the management of ASD with irritability.
These standards are provided for informational purposes only and do not represent professional or legal advice. There are many variables that influence and direct the professional delivery of Applied Behavior Analysis (ABA) services. The BACB and authors of these standards assume no liability or responsibility for application of these standards in the delivery of ABA services. The standards presented in this document reflect the consensus of a number of subject matter experts, but do not represent the only acceptable application of these standards in the delivery of ABA services. The BACB and authors of these standards assume no liability or responsibility for application of these standards in the delivery of ABA services. The BACB and authors of these standards assume no liability or responsibility for application of these standards in the delivery of ABA services. The BACB and authors of these standards assume no liability or responsibility for application of these standards in the delivery of ABA services. The BACB and authors of these standards assume no liability or responsibility for application of these standards in the delivery of ABA services. The BACB and authors of these standards assume no liability or responsibility for application of these standards in the delivery of ABA services.

Consultation with parents, behavior analysts, regulators, and healthcare funders and managers.

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SECTION 1: EXECUTIVE SUMMARY

The purpose of this document is to inform decision-making regarding the use of Applied Behavior Analysis (ABA) to treat medically necessary conditions so as to develop, maintain, or restore, to the maximum extent practicable, the functioning of individuals with Autism Spectrum Disorder (ASD) in ways that are both efficacious and cost effective.1

This is the second edition of this resource manual and it will continue to be periodically updated to reflect changes in clinical practice and research findings. Additional references and information can be found in the appendices.

These unique features of ABA, as a behavioral health treatment, include a number of clinical and delivery components. Thus, it is important that those charged with building a provider network understand ABA as a treatment for ASD. This document provides clinical guidelines and other information about ABA as a treatment for consumers, service providers, and regulatory bodies.

Government health programs, employers, among others, use ABA as a behavioral health treatment for individuals diagnosed with ASD. The guidelines are intended to be a brief and user-friendly introduction to the delivery of ABA services for ASD. The guidelines are written for healthcare funders and managers, such as insurance companies.

These guidelines are based on the best available scientific evidence and expert clinical opinion regarding ways that are both efficacious and cost effective.

The purpose of this document is to inform decision-making regarding the use of Applied Behavior Analysis.
SECTION 2: AUTISM SPECTRUM DISORDER AND APPLIED BEHAVIOR ANALYSIS

1 What is ASD?

ASD is characterized by varying degrees of difficulty in social interaction and verbal and nonverbal communication, and the presence of repetitive behavior and/or restricted interests. Due to the variability and symptom presentation, no two individuals with an ASD diagnosis are the same with respect to how the disorder manifests and its impact on families. Because of the nature of the disorder, people with ASD often will not achieve the ability to function independently without appropriate medically necessary treatment.

2 What is ABA?

ABA is a well-developed scientific discipline among the helping professions that focuses on the analysis, design, implementation, and evaluation of social and other environmental modifications to produce meaningful changes in human behavior. ABA includes the use of direct observation, measurement, and functional analysis of the relations between environment and behavior. ABA uses changes in environmental events, including antecedent stimuli and consequences, to produce practical and significant changes in behavior. These relevant environmental events are usually identified through a variety of specialized assessment methods. ABA is based on the fact that an individual's behavior is determined by past and current environmental events in conjunction with individual's social and learning environments.

The current guidelines are specific to ABA as a behavioral health treatment of ASD. Nevertheless, ABA has also been demonstrated as effective for treating the symptoms of a variety of conditions, including severe destructive behavior, substance abuse, dementia, pediatric feeding disorders, traumatic brain injury, among others.
This document provides guidance regarding ABA treatment only; other behavioral health treatments are not addressed.

ABA treatment must not be restricted, nor prioritized, to specific settings but instead should be delivered in those settings that maximize treatment outcomes for the individual client.

The guidelines are pertinent to the use of ABA as a behavioral health treatment to develop, maintain, or restore, to the maximum extent practicable, the functioning of an individual with ASD.

The guidelines should not be used to diminish the availability, quality, or frequency of currently available ABA treatment services.

Some individuals diagnosed with ASD have co-occurring conditions including, but not limited to, intellectual disabilities, seizure disorders, psychiatric disorders, chromosomal abnormalities, feeding disorders, sleep disorders, elimination disorders, destructive behavior (for example, self-injury, aggression), and a variety of other conditions that require additional medical treatment. These conditions can exacerbate the core deficits of ASD, thereby limiting treatment effectiveness and outcomes.

Some individuals diagnosed with ASD have co-occurring conditions that may affect treatment outcomes. These guidelines apply to individuals diagnosed with ASD with these co-occurring conditions, as research has established ABA as effective for these client populations as well.

SECTION 3: CONSIDERATIONS

The successful remediation of core deficits of ASD, and the development or restoration of abilities that reflect established research findings and best clinical practices, has made ABA the standard of care for the treatment of ASD (see Appendix B).

The guidelines provide recommendations and recommendations that reflect established research findings and best clinical practices. However, individualized treatment is a defining feature and integral component of ABA, which is one reason why it has been so successful in treating this heterogeneous disorder.

Individuals with ASD have co-occurring conditions that require additional medical treatment. These conditions, such as intellectual disabilities, seizure disorders, psychiatric disorders, chromosomal abnormalities, feeding disorders, sleep disorders, elimination disorders, and destructive behavior (for example, self-injury, aggression), and a variety of other conditions that require additional medical treatment, can exacerbate the core deficits of ASD, thereby limiting treatment effectiveness and outcomes.

Some individuals diagnosed with ASD have co-occurring conditions that may affect treatment outcomes. These guidelines apply to individuals diagnosed with ASD with these co-occurring conditions, as research has established ABA as effective for these client populations as well.
SECTION 1: TRAINING AND CREDENTIALING OF BEHAVIOR ANALYSTS

ABA is a specialized behavioral health treatment approach and most graduate or postgraduate training programs in psychology, counseling, social work, or other areas of clinical practice do not provide in-depth training in this discipline. Thus, an understanding of the credentialing process of Behavior Analysts by the Behavior Analyst Certification Board® (BACB®) can assist health plans and their subscribers in identifying those providers who meet the basic competencies to practice ABA.

The formal training of professionals certified by the BACB is similar to that of other medical and behavioral health professionals. That is, they are initially trained within academia and then begin working in a supervised clinical setting with clients. As they gradually demonstrate the competencies necessary to manage complex clinical problems across a variety of clients and medical environments, they become independent practitioners. This period in which they work under the direct supervision of an experienced Behavior Analyst is referred to as an internship.

Although healthcare funding and management of behavioral health treatments supervised by Behavior Analysts is relatively recent, Behavior Analysts—like other medical and behavioral health professionals—rely upon strategies and procedures documented in peer-reviewed literature, established treatment protocols, and clinical decision-making frameworks. They continually evaluate the current state of the client and family members and coordinate care with other professionals.

PART II: Unique Features of Applied Behavior Analysis

Applied Behavior Analyses (ABA) are specialized behavioral health treatment approaches and most graduate or postgraduate programs in psychology, counseling, social work, or other areas of clinical practice do not provide in-depth training in this discipline. Thus, an understanding of the credentialing process of Behavior Analysts by the Behavior Analyst Certification Board® (BACB®) can assist health plans and their subscribers in identifying those providers who meet the basic competencies to practice ABA.
The Behavior Analyst Certification Board (BCBA) is a nonprofit 501(c)(3) corporation established to meet professional credentialing needs identified by Behavior Analysts, governments, and consumers of behavior analysis services worldwide. The mission of the BACB is to protect consumers of behavior analysis services, identify behavior analysis professionals, and disseminate professional standards. The BACB has established uniform standards, criteria, and guidelines for the certification process that are designed to meet the legal standards established through state, national, and case law. The BACB requires that BCaBAs, or Assistant Behavior Analysts, work under the supervision of a BCBA or BCBA-D. The BACB also requires that RBTs work under the supervision of a BCBA-D or BCBA. Practitioners credentialed at the BCBA-D and BCBA levels are defined as Behavior Analysts. The BACB and BCBA certification programs are currently accredited by the National Commission for Certifying Agencies (NCCA), the accreditation arm of the Institute for Credentialing Excellence. NCCA reviews and oversees all aspects related to ensuring the development and application of appropriate credentialing processes. The BACB and BCBA certification programs meet the legal standards established through state, national, and case law. The BACB recognizes practitioners at four levels:

- **DOCTORAL**

- **BOARD CERTIFIED BEHAVIOR ANALYST® (BCBA®)**

- **BOARD CERTIFIED BEHAVIOR ANALYST – DOCTORAL™ (BCBA-D™)**

- **REGISTERED BEHAVIOR TECHNICIAN™ (RBT™)**

- **BOARD CERTIFIED ASSISTANT BEHAVIOR ANALYST® (BCaBA®)**

- **HIGH SCHOOL**

- **BACHELOR'S**

- **Masters**
Eligibility Requirements for Behavior Analysts & Assistant Behavior Analysts

Applicants who meet the degree, coursework, and supervised experience eligibility requirements described in the next section are permitted to sit for either the BCBA or BCaBA examination (see figure below). Each examination is professionally developed to meet accepted examination standards and is based on the results of formal job analyses and surveys. In addition, all BACB examinations are offered under secure testing conditions and are professionally administered and scored.

Primary requirements for certification by the BACB:
All certificants must regularly report any matter that might impact their ethical compliance. The BACB's ethical requirements may be found at www.BACB.com.

The BACB uses an online complaint system by which the organization is alerted to potential disciplinary violations. Each complaint is evaluated by the BACB legal department and then, based on its merit, is forwarded to a committee for review and processing. The committee members are senior BCBAs or BCBA-Ds selected for their knowledge and independence, and when advisable includes a member from the certificant’s region or discipline.

Disciplinary actions for certificants include, but are not limited to, advisory consultation, mandated continuing education, or suspension of certification. Resolving disciplinary actions are publicly reported online. BACB’s ethical requirements may be found at www.BACB.com.

Continuing Education and Maintaining Certification

**BCaBA**
- **20 hours**

**BCBA**
- **32 hours**

**BCBA-D**
- **32 hours**

Continuing education credits are required to attest to their professional ethics and to maintain their certification. Organizations that employ behavior analysts should provide this training as needed.
### Identifying ABA

Healthcare funders and managers must be able to recognize the following core characteristics of ABA:

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<tr>
<td>1</td>
<td>An objective assessment and analysis of the client’s condition by observing how the environment affects the client’s behavior, as evidenced through appropriate data collection</td>
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<tr>
<td>2</td>
<td>Importance given to understanding the context of the behavior and the behavior’s value to the individual, the family, and the community</td>
</tr>
<tr>
<td>3</td>
<td>Utilization of the principles and procedures of behavior analysis such that the client’s health, independence, and quality of life are improved</td>
</tr>
<tr>
<td>4</td>
<td>Consistent, ongoing, objective assessment and data analysis to inform clinical decision-making</td>
</tr>
</tbody>
</table>
Essential Practice Elements of ABA

The four core characteristics listed above should be apparent throughout all phases of assessment and treatment by a Behavior Analyst.

1. Comprehensive Assessment

To promote optimal functioning and promote generalization and maintenance of behavioral improvements.

2. Direct Support and Training of Family Members and Other Involved Professionals

To the treatment plan (as per the behavior analyst) based on client progress as determined by observations and frequent direct assessment, analysis, and adjustments.

3. Use of treatment protocols that are implemented repeatedly, frequently, and consistently across environments until discharge criteria are met.

4. Efforts to design, establish, and manage the social and learning environments to minimize problem behaviors and maximize levels of progress toward all goals.

5. A practical focus on establishing small units of behavior which build towards larger, more significant changes in functioning related to improved health and levels of independence.

6. Use of a carefully constructed, individualized, and detailed behavior-analytic treatment plan that utilizes reinforcement and other behavioral principles and excludes the use of methods or techniques that lack consensus about their effectiveness based on evidence in peer-reviewed publications.

7. Use of treatment protocols that are implemented repeatedly, frequently, and consistently across environments until discharge criteria are met.

8. An emphasis on on-going and frequent direct assessment, analysis, and adjustments.

9. Collection, quantification, and analysis of direct observational data on behavioral targets during treatment and follow-up to maximize and maintain progress toward treatment goals.

10. An approach to the treatment of problem behavior that links the function of (or the reason for) the behavior to the programmed intervention strategies.

11. Use of comprehensive infrastructure for supervision of all assessment and treatment by a Behavior Analyst.
Treatment Models

ABA treatment programs for ASD incorporate findings from hundreds of applied studies focused on understanding and treating ASD published in peer-reviewed journals over a 50-year span. Treatment models vary in terms of intensity and duration, the complexity and range of treatment goals, and the extent of direct treatment provided. Many variables, including the number, complexity, and intensity of behavioral targets, influence which model is most appropriate. Although existing on a continuum, these differences can be generally categorized as one of two treatment models: Focused or Comprehensive ABA Treatment.

Focused ABA Treatment

Focused ABA refers to treatment provided directly to the client for a limited number of behavioral targets. It is not restricted by age, cognitive level, or co-occurring conditions.

Focused ABA treatment may involve increasing socially appropriate behavior (for example, increasing social initiations) or reducing problem behavior (for example, aggression). Even when reduction of problem behavior is the primary goal, it is critical to also target increases in appropriate alternative behavior because the absence of appropriate behavior is often the precursor to serious behavior disorders. Therefore, individuals who need to acquire skills (for example, communication, toileting, dressing, self-care) are also appropriate for Focused ABA treatment.

Focused ABA plans are appropriate for individuals who (a) need treatment only for a limited number of key functional skills or (b) have such acute problem behavior that its treatment should be the priority.

Focused ABA Treatment Service Description

Focused ABA treatment may involve increasing socially appropriate behavior and reducing problem behavior. Examples of key functional skills include, but are not limited to, establishing instruction-following, increasing social initiations or interactive behaviors (for example, initiating joint attention), increasing compliance with medical and dental procedures, sleep hygiene, self-care skills, self-help skills, social communication skills, compliance with medication regimens, and independent leisure skills (for example, appropriate participation in family activities).
include, but are not limited to, self-injury, aggression, threats, pica, elopement, feeding disorders, stereotypic motor or vocal behavior, property destruction, noncompliance and disruptive behavior.

When prioritizing the order in which to address multiple treatment targets, the following should be considered:

1. Behavior that threatens the health or safety of the client or others or that constitute a barrier to quality of life (for example, severe aggression, self-injury).
2. Property destruction, or noncompliance.
3. Absence of developmentally appropriate adaptive, social or functional skills that are fundamental to maintaining health, social inclusion, and increased independence
4. Asocial or self-injurious to the client or others or that constitute a barrier to quality of life.

When the focus of treatment involves increasing socially appropriate behavior, treatment may be delivered in either an individual or small-group format. When conducted in a small group, typically developing peers with similar diagnoses may participate in the session. Members of the behavior-analytic team may guide clients through the rehearsal and practice of behavioral objectives. Programming for generalization of skills outside the session is critical.

When the focus of treatment involves the reduction of severe problem behavior, the Behavior Analyst will determine which situations are most likely to precipitate problem behavior, and based on this information, begin to identify its potential function (or “function”). This may require conducting a functional analysis procedure to empirically demonstrate the function of the problem behavior. The results enable the Behavior Analyst to develop the most effective treatment protocol.

When the focus of treatment involves increasing socially appropriate behavior, treatment may be delivered in either an individual or small-group format. When conducted in a small group, typically developing peers with similar diagnoses may participate in the session. Members of the behavior-analytic team may guide clients through the rehearsal and practice of behavioral objectives. Programming for generalization of skills outside the session is critical.
In some cases, individuals with ASD display co-occurring severe destructive behavior disorders that require focused treatment in more intensive settings, such as specialized intensive-outpatient, day-treatment, residential, or inpatient programs. These behavior disorders are given separate and distinct diagnoses (for example, Stereotypic Movement Disorder with severe self-injurious behavior). The ABA services delivered in these settings typically require higher staff-to-client ratios and close on-site direction from the Behavior Analyst. In addition, such treatment programs often have specialized treatment environments (for example, treatment rooms designed for observation and to keep the client and the staff as safe as possible).

Comprehensive ABA Treatment

Comprehensive ABA refers to treatment of the multiple affected developmental domains, such as cognitive, communicative, social, emotional, and adaptive functioning. Maladaptive behaviors, such as noncompliance, tantrums, and stereotypy, are also typically the focus of treatment. Although there are different types of comprehensive treatment, one example is early intensive behavioral intervention where the overarching goal is to close the gap between the client’s level of functioning and that of typically developing peers. These programs tend to range from 30-40 hours of treatment per week (plus direct and indirect supervision and caregiver training). Initially, treatment is typically provided in structured therapy sessions, which are integrated with more naturalistic methods as appropriate. As the client progresses and meets established criteria for more naturalistic methods, treatment models may also be applicable. This treatment model typically involves bringing the client to the program and gradually including small-group formats as the client is able to maintain independent skills. Typically, initial treatment is provided in a 1:1 setting, and as the treatment progresses, small-group formats are introduced.

Service Description

Treatment rooms designed for observation and to keep the client and the staff as safe as possible. In addition, speech and language programs often have specialized treatment environments (for example, treatment rooms for each client and a specific environment for each client’s specific needs). The ABA services delivered in these settings typically require higher staff-to-client ratios.
Typical Program Components

Noted to support implementation of the treatment plan across settings, the client behavior, the client’s rate of progress, demonstration of prerequisite skills, and resources must reflect many variables, including the research base, the age of the client, specific aspects of the treatment plan.

Decisions about how these various dimensions are implemented within individual treatment plans vary depending on the degree to which they are branded and available commercially. Variations within these models may differ in terms of the degree to which they are structured vs. naturalistic. Other variations include the extent to which peers or parents are involved in the delivery of treatment. Finally, some differ in terms of the degree to which they are provider- or client-directed (sometimes described as “intensive” vs. “naturalistic”).

For information on treatment intensity and duration for various models, see Section 4 (Service Authorization and Dosage).

Typical Program Components

- Vocational skills
- Language and communication
- Social relationships
- Family relationships
- Self-management
- Emotional development
- Self-advocacy and independence
- Safety skills
- Coping and tolerance skills
- Community participation
- Cognitive functioning
- Reduction of interfering or inappropriate behaviors
- Pre-academic skills
- Attention and social referencing
- Play and leisure skills
- Adaptive and self-care skills

Treatment programs within any of these models vary along several programmatic dimensions.
ABA Procedures Employed in These Models

A large number of ABA procedures are routinely employed within the models previously described. These procedures include different types of reinforcement and schedules of reinforcement, differential reinforcement, shaping, chaining, behavioral momentum, prompting and fading, behavioral skills training, extinction, functional communication training, discrete-trial teaching, incidental teaching, self-management, functional assessment, preference assessment, activity schedules, generalization and maintenance procedures, among many others. See the BACB Fourth Edition Task List for a detailed list.

The field of behavior analysis is constantly developing and evaluating applied behavior change procedures. Different outcomes are possible for different individuals with ASD. Procedures may be systematically adapted and evaluated for their effectiveness. If one ABA procedure or combination of ABA procedures is not producing the desired outcomes, a different one may be systematically implemented and evaluated for its effectiveness.
The standard of care provides for treatment to be delivered consistently in multiple settings to promote generalization and maintenance of therapeutic benefits. No ABA model is specific to a particular location and all may be delivered in a variety of settings, including residential treatment facilities, inpatient and outpatient programs, homes, schools, transportation, and places in the community. Treatment across settings with multiple adults, siblings, and/or typically developing peers, under the supervision of a Behavior Analyst, supports generalization and maintenance of treatment gains.

To ensure continuity of care, sufficient ABA treatment and consultation should be delivered in subsequent educational and therapeutic settings (for example, residence to school, hospital to home) to successfully support and transition individuals.

The standard of care provides for treatment to be delivered consistently in multiple settings to promote generalization and maintenance of therapeutic benefits. No ABA model is specific to a particular location and all may be delivered in a variety of settings, including residential treatment facilities, inpatient and outpatient programs, homes, schools, transportation, and places in the community. Treatment across settings with multiple adults, siblings, and/or typically developing peers, under the supervision of a Behavior Analyst, supports generalization and maintenance of treatment gains. It should be noted that treatment might occur in multiple settings (for example, home, community, and transportation) on the same day. Treatment should not be denied or withheld because a caregiver cannot be at the treatment location consistently.
Treatment should be based on the clinical needs of the individual and not constrained by age. Consistent ABA treatment should be provided as soon as possible after diagnosis, and in some cases services are warranted prior to diagnosis. Therefore, treatment plans that combine ABA with non-evidence-based treatment, or less effective than ABA alone, are considered eclectic and do not constitute ABA treatment.

There is evidence that the earlier treatment begins, the greater the likelihood of positive long-term outcomes. Combining ABA with other forms of treatment is less effective than ABA alone. Therefore, treatment plans that combine ABA with non-evidence-based treatment are considered eclectic and do not constitute ABA treatment.
SECTION 3: ASSESSMENT, FORMULATION OF TREATMENT GOALS, AND MEASUREMENT OF CLIENT PROGRESS

The Assessment Process

A developmentally appropriate ABA assessment process must identify strengths and weaknesses across domains and potential barriers to progress. The information from this process is the basis for developing the individualized ABA treatment plan. An ABA assessment process must identify strengths and weaknesses across domains and potential barriers to progress. The information from this process is the basis for developing the individualized ABA treatment plan. An ABA assessment process must identify strengths and weaknesses across domains and potential barriers to progress. The information from this process is the basis for developing the individualized ABA treatment plan. An ABA assessment process must identify strengths and weaknesses across domains and potential barriers to progress. The information from this process is the basis for developing the individualized ABA treatment plan.
Direct Assessment and Observation

Direct observation and data collection and analysis are defining characteristics of ABA. The analysis of such data serves as the primary basis for identifying pretreatment levels of functioning, developing and adapting treatment protocols on an ongoing basis. The assessment of standardized assessments may be used to monitor progress toward long-term treatment goals.

Assessment from Other Professionals

Periodic assessments from other professionals may be helpful in guiding treatment or assessing progress. Examples might include assessment of general intellectual functioning, medical status, academic performance, among others. Periodic reassessment is necessary to evaluate a child’s progress toward a specific mastery criterion. The measurement system for tracking progress toward goals should be individualized to the client, the treatment context, the critical features of the behavior, and the available resources of the treatment environment. The number and complexity of goals should be consistent with the intensity and setting of service. The appropriateness of existing and new goals should be considered on a periodic basis.
Assessment of overall progress toward comprehensive treatment goals should be summarized at regular intervals (for example, on a semiannual basis). For severe problem behavior, is often complex and may require considerably longer durations. The duration of assessment processes for severe problem behaviors and assessments for focused treatments that involve 20 hours or longer. Subsequent assessments for focused treatments may take 20 hours or longer. Subsequent assessments for focused treatments that involve

### 3. Functional Assessment of Problem Behavior

When a client exhibits problem behavior at a level that is disruptive to the environment or dangerous conditions without a substantial change in measures of intellectual functioning, this score on such assessments should not be used to deny or discontinue ABA treatment.

### 4. Duration and Frequency of Assessment

Functional assessment can be complex and may require higher staffing ratios and more direction by the Behavior Analyst. Functional analysis refers to directly changing environmental events and evaluating the impact on the behavior of the client. Functional analysis may take the form of observations of ongoing interactions in the natural environment or the form of a functional analysis. Functional analysis typically includes multiple sources of information such as interviews with caregivers, structured ratings scales, and collection of direct observation data. The functional assessment process typically includes multiple sources of information such as interviews with caregivers, structured ratings scales, and collection of direct observation data. The functional assessment process typically includes multiple sources of information such as interviews with caregivers, structured ratings scales, and collection of direct observation data.
SECTION 4: SERVICE AUTHORIZATION AND DOSAGE

Service Authorization

Authorization periods should not typically be for less than 6 months and may involve some or all of the following services. If there is a question as to the appropriateness or effectiveness of ABA for a particular client, a review of treatment data may be conducted more frequently (for example, after 3 months of treatment). In addition, if third-party clinical review (also known as peer review) is required by a healthcare funder or manager, the reviewer should be a Behavior Analyst with experience in ABA treatment of ASD.

The following list represents common services that should be authorized for optimal treatment outcome. Others may be appropriate.

1. Behavior-Analytic Assessment
2. Treatment Plan Development and Modification
3. Direct Treatment to Individuals or Groups with Implementation by Behavior Analysts and/or Behavior Technicians
4. Supervision (both direct and indirect) by Behavior Analysts
5. Travel to Ensure Equitable Access to Services (for example, rural and underserved areas)
6. Parent and Community Caregiver Training to Individuals or Groups
7. Consultation to Ensure Continuity and/or Coordination of Care
8. Discharge Planning

These services may be effectively delivered via telehealth in jurisdictions that permit such delivery systems.

*服务授权授权

授权周期通常不应少于6个月，并可能涵盖以下所有服务。如果对特定客户的ABA的有效性或适当性有疑问，可以对治疗数据进行更频繁的复查（例如，治疗后3个月）。此外，如果第三人临床审稿（也称为同行评审）由医疗资助者或管理机构要求，审稿人应为行为分析师，具有ABD治疗自闭症的经验。

以下列表代表了应授权的常见服务，以实现最佳治疗效果。其他服务也可能适用。

1. 行为分析评估
2. 治疗计划的开发和修改
3. 为个案或团体直接提供治疗，由行为分析师和/或行为技术人员实施
4. 监督（直接和间接）由行为分析师
5. 为确保服务的公平可及而进行的旅行
6. 家长和社区照料者培训
7. 咨询以确保连续性或协调护理
8. 退出规划

*这些服务可能在允许此类交付系统的司法管辖区通过远程健康进行有效交付。
Critical Features of a Treatment Plan for Service Authorization

I. Patient Information
   A. Demographics (name, age, gender, diagnosis)
   B. Living situation
   C. Home/school/work information

II. Reason for Referral
   A. Operational definition for each behavior and goal

III. Brief Background Information
   A. Demographics (name, age, gender, diagnosis)
   B. Living situation
   C. Home/school/work information

IV. Clinical Interview
   A. Information gathering on problem behaviors, including developing operational definitions of primary area of concern and information regarding possible function of behavior
   B. Operational definition for each behavior and goal

V. Review of Recent Assessments/Reports (file review)
   A. Any recent functional behavior assessment, cognitive testing, and/or progress reports

VI. Assessment Procedures & Results
   A. Description of assessments, including their purpose
   B. Target behaviors are operationally defined, including baseline levels
   C. Brief description of assessments, including their purpose

VII. Treatment Plan (Focused ABA)
   A. Treatment setting
   B. Operational definition for each behavior and goal
   C. Specify behavior management (that is, behavior reduction and/or acquisition) procedures:
      1. Consequence-based interventions
      2. Antecedent-based interventions
   D. Operational definition of each behavior and goal
   E. Proposed goals and objectives
   F. Describe data collection procedures
      1. Direct assessments
      2. Indirect assessments
      3. Provide summary of findings for each assessment (graphs, tables, or grids)

VIII. Clinical Interview
   A. Home/school/work information
   B. Living situation
   C. Demographics (name, age, gender, diagnosis)
Critical Features of a Treatment Plan for Service Authorization

<table>
<thead>
<tr>
<th>VIII. Treatment Plan (Skill Acquisition – Comprehensive ABA)</th>
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<tr>
<td>a. Treatment setting</td>
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<tr>
<td>b. Instructional methods to be used</td>
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<tr>
<td>c. Operational definition for each skill</td>
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<tr>
<td>d. Describe data collection procedures</td>
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<tr>
<td>e. Proposed goals and objectives*</td>
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<th>IX. Parent/Caregiver Training</th>
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<tr>
<td>a. Specify parent training procedures</td>
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<td>b. Describe data collection procedures</td>
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<tr>
<td>c. Operational definition for each skill</td>
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<td>d. Instructional methods to be used</td>
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<td>e. Proposed goals and objectives*</td>
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<th>X. Number of Hours Requested</th>
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<tr>
<td>a. Number of hours needed for each service</td>
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<tr>
<td>b. Clinical summary that justifies hours requested</td>
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<tr>
<td>c. Billing codes requested (for example, CPT, HCPCS)</td>
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<th>XI. Coordination of Care</th>
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<td>a. Specify plan for generalization</td>
</tr>
<tr>
<td>b. Estimated date of mastery</td>
</tr>
<tr>
<td>c. Current level (baseline)</td>
</tr>
</tbody>
</table>

* Each goal and objective must include:

- Current level (baseline)
- Expected to demonstrate, including condition under which it must be demonstrated and mastery criteria (the objective or goal)
- Estimated date of mastery
- Clinical summary that justifies expected to demonstrate, including condition under which it must be demonstrated and mastery criteria (the objective or goal)
- Current level (baseline)
- Proposed goals and objectives*
- Specific plan for generalization
- Instructional methods to be used
- Operational definition for each skill
- Data collection procedures

* Each goal and objective must include:
Treatment dosage, which is often referenced in the treatment literature as "intensity," will vary with each client and should reflect the goals of treatment, specific client needs, and response to treatment. This treatment dosage is effectively managed by evaluating the client's response to treatment.

Duration

Dependence on more intrusive services across their life span.

Although the recommended number of hours of therapy may seem high, this is based on research findings regarding the intensity required to produce good outcomes. It should also be noted that time spent away from therapy may result in the individual falling further behind age-appropriate developmental expectations. Such delays will likely result in increased costs and greater dependency on more intrusive services across their life span.

Focused ABA Treatment

Focused ABA generally ranges from 10-25 hours per week of direct treatment (plus direct and indirect supervision and caregiver training). However, certain programs for severe destructive behavior may require more than 25 hours per week of direct therapy (for example, day treatment or inpatient program for severe self-injurious behavior). Other descriptive behavioral features that may require more than 25 hours of focused ABA treatment include severe challenging behavior, self-injurious behavior, and severe restrictive behavior.

Comprehensive ABA Treatment

Comprehensive ABA generally ranges from 30-40 hours per week of direct treatment to the client per week, not including caregiver training, supervision, and other needed services. Treatment often involves an intensity level of 1:1 direct treatment to the client, per week.
Most ABA treatment programs involve a tiered service-delivery model in which the Behavior Analyst designs and supervises a treatment program delivered by Assistant Behavior Analysts and Behavior Technicians.

### Description of a Tiered Service-Delivery Model

In the first example (below), the Behavior Analyst oversees a treatment team of Behavior Technicians. Following are two examples of tiered service-delivery models (among others), an organizational approach to treatment delivery considered cost-effective in delivering desired outcomes.

**Behavior Analyst’s clinical, supervisory, and case management activities are often supported by other staff such as Assistant Behavior Analysts working within the scope of their training, practice, and competence.**
Such models assume the following:

1. The BCBA or BCBA-D is responsible for all aspects of clinical direction, supervision, and case management, regardless of whether or not there is clinical support provided by a BCaBA.

2. The BCBA or BCBA-D must have knowledge of each member of the treatment team’s ability to effectively carry out clinical activities before assigning them.

3. The BCBA and BCBA-D must be familiar with the client’s needs and treatment plan and regularly observe the Behavior Technician implementing the plan, regardless of whether or not there is clinical support from a BCaBA and Behavior Technicians.

In the second example (below), the Behavior Analyst is supported by an Assistant Behavior Analyst.

Support provided by a BCaBA.

In the second example (below), the Behavior Analyst is supported by an Assistant Behavior Analyst.
Tiered service-delivery models can also help with treatment delivery to families in rural and underserved areas, as well as clients and families who have complex needs.

In response to client progress or need, tiered service-delivery models enable medically necessary treatment. The use of tiered service-delivery model enables healthcare funders and managers to ensure adequate provider networks and deliver medically necessary treatment.

Their use produces more cost-effective levels of service for the duration of treatment. The use of carefully trained and well-supervised assistant behavior analysts and behavior technicians is a common practice in ABA treatment. Improvements in cognitive, language, social, behavioral, and adaptive domains that have been documented in the peer-reviewed literature.

Behavior technicians have been the primary mechanism for achieving many of the significant improvements in cognitive, language, social, behavioral, and adaptive domains that have been documented in the peer-reviewed literature.
Selection, Training, and Supervision of Behavior Technicians

Behavior Technicians should receive specific, formal training before providing treatment. One way to ensure such training is through the Registered Behavior Technician credential (see page 30).

Although hiring qualifications and initial training are important, there must be ongoing optimization. Progress of the client should be dictated by an analysis of the treatment needs of the client to make behavior analytic or individually and with or without the client present: The frequency and intensity should be in client briefings with other members of the treatment team, including the supervising Behavior Analyst or other members of the treatment team. This activity may occur on a weekly basis for complex cases or monthly for more routine cases. This activity may also occur on a more frequent basis, depending on the client's needs. This should be more frequent for new clients, when a new client is assigned, or when a client has challenging behaviors or complex treatment protocols involved. Quality of implementation (treatment integrity checks) should be monitored on an ongoing basis. Case loads for the Behavior Technician are determined by the:

- intensity of hours of therapy the client is receiving
- number of hours per week the Behavior Technician is employed
- experience and skills of the Behavior Technician
- complexity of the cases

Case loads for the Behavior Technician should receive specific, formal training before providing treatment. One way to ensure such training is through the Registered Behavior Technician credential (see page 30).
Eligibility Requirements

Applicants for the RBT credential must:

- Be at least 18 years of age
- Possess a minimum of a high school diploma or national equivalent
- Be at least 18 years of age

RBTs must:

- Receive ongoing supervision by a BACB certificant for a minimum of 5% of the hours spent providing applied behavior-analytic services per month (including at least 2 face-to-face, synchronous supervisory contacts.
- Abide by a subset of the BACB’s Professional and Ethical Compliance Code for Behavior Analysts identified as relevant for RBTs.
- Complete a 40-hour training program (conducted by a BACB certificant) based on the RBT Task List
- Successfully complete a criminal background registry check at the time of application
- Possess a minimum of a high school diploma or national equivalent

Ongoing Practice Requirements

RBTs must:

- Pass the RBT Competency Assessment administered by a BACB certificant

Requirements for the Registered Behavior Technician (RBT) Credential
SECTION 6: CASE SUPERVISION

ABA treatment is often characterized by the number of direct treatment hours per week. However, it is also critical to consider the required levels of additional case supervision (aka clinical direction) and those that do not (indirect supervision) also known as clinical direction) and those that do not (indirect supervision) also known as administrative activities. Both direct and indirect case supervision activities are critical to producing good treatment outcomes and should be included in service authorizations.

CASE SUPERVISION ACTIVITIES

Case supervision activities can be described as those that involve contact with the client or caregivers (indirect supervision) also known as clinical direction). This section will describe the case supervision activities that are individually clinical treatment and medically necessary to achieve treatment goals. Routine organizational activities (for example, timekeeping, employee evaluations, among others) that are not involved in individually clinical treatment are not included here.

Case supervision activities are described as those that involve contact with the client or caregivers (indirect supervision) also known as clinical direction). Direct supervision occurs concurrently with the delivery of direct treatment to the client. On average, direct supervision time accunts for 50% or more of case supervision. Both direct and indirect case supervision activities are critical to producing good treatment outcomes and should be included in service authorizations. It should be noted that direct supervision activities can be described as those that involve contact with the client or caregivers (indirect supervision) also known as clinical direction) and those that do not (indirect supervision) also known as administrative activities. Both direct and indirect case supervision activities are critical to producing good treatment outcomes and should be included in service authorizations.
Direct Supervision Activities

- Directly observe treatment implementation for potential program revisions.
- Monitor treatment integrity to ensure satisfactory implementation of treatment protocols.
- Directing staff and/or caregivers in the implementation of new or revised treatment protocols.

Indirect Supervision Activities

- Develop treatment goals, protocols, and data collection systems.
- Summarize and analyze data.
- Evaluate client progress towards treatment goals.
- Adjust treatment protocols based on data.
- Coordination of care with other professionals.
- Review client progress towards treatment goals.
- Develop and oversee transition/discharge plan.
- Crisis intervention.
- Directing staff and/or caregivers in the implementation of new or revised treatment protocols (client absent).

The list below, while not exhaustive, identifies some of the most common case supervision activities:

- Direct
- Observe
- Monitor
- Evaluate
- Coordinate
- Develop
- Revise
- Analyze
- Observe, monitor, implement, and report on implementation of treatment protocols.
- Directly observe treatment implementation for potential program revisions.
- Review client progress without the client present to refine treatment protocols.
- Review client progress with the client present to refine treatment protocols.
- Develop treatment goals, protocols, and data collection systems.
Supervisory Staff Qualifications:

**BEHAVIOR ANALYST Qualifications**
- BCBA-D/BCBA or License in related field
- Competence in supervising and developing ABA treatment programs for clients with ASD

**Responsibilities**
- Develop and oversee transition/discharge plan
- Report progress towards treatment goals
- Ensure satisfactory implementation of treatment protocols
- Evaluate risk management and crisis management
- Train and consult with caregivers and others professionals
- Monitor treatment integrity
- Adjust treatment protocols based on data
- Supervise implementation of treatment
- Evaluate client progress towards treatment goals
- Summarize and analyze data

**ASSISTANT BEHAVIOR ANALYST Qualifications**
- BCaBA (preferred)

**Responsibilities**
- Various supervisory tasks that have been delegated and are oversees by the Behavior Analyst

Case Supervision Activities, cont.
Some case supervision activities occur in vivo; others can occur remotely (for example, via secure telemedicine or virtual technologies). However, telemedicine should be combined with in vivo supervision in addition, so some case supervision activities are appropriate for small groups. Some indirect case supervision activities are more effectively carried out outside of the treatment setting.

**Dosage of Case Supervision**

Although the amount of supervision must be responsive to individual client needs, 2 hours for every 10 hours of direct treatment hours reflects the complexity of the client’s ASD symptoms and the responsive, individualized, data-based decision-making that characterizes ABA treatment. The ratio of case supervision hours to direct treatment hours adjusts on a shorter- or longer-term basis. These include:

- Treatment dosage/intensity
- Treatment needs or decreased case supervision needs on a shorter- or longer-term basis
- A number of factors increase or decrease case supervision needs (for example, initial assessment, important new assessment, increased or decreased dosage, increased or decreased speed of treatment).

This ratio of case supervision hours to direct treatment hours reflects the complexity of the client’s ASD symptoms and the responsive, individualized, data-based decision-making which characterizes ABA treatment.

- Treatment dosage/intensity
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**Modality**

Some case supervision activities occur in vivo; others can occur remotely (for example, via secure telemedicine or virtual technologies). However, telemedicine should be combined with in vivo supervision in addition, so some case supervision activities are appropriate for small groups. Some indirect case supervision activities are more effectively carried out outside of the treatment setting.

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**Modality**

Some case supervision activities occur in vivo; others can occur remotely (for example, via secure telemedicine or virtual technologies). However, telemedicine should be combined with in vivo supervision in addition, so some case supervision activities are appropriate for small groups. Some indirect case supervision activities are more effectively carried out outside of the treatment setting.
Behavior Analysts should carry a caseload that allows them to provide appropriate case supervision to facilitate effective treatment delivery and ensure consumer protection. Caseload size for the Behavior Analyst is typically determined by the following factors:

- Complexity and needs of the clients in the caseload
- Total treatment hours delivered to the clients in the caseload
- Total case supervision and clinical direction required by caseload
- Level of expertise and skills of the Behavior Analyst
- Location and modality of supervision and treatment (for example, center vs. home, group vs. telehealth vs. in vivo)
- Availability of support staff for the Behavior Analyst (for example, a BCaBA)

The recommended caseload range for one (1) Behavior Analyst supervising Focused treatment without support by a BCaBA is 6 - 12. Additional BCaBAs permit modest increases in caseloads.

The recommended caseload range for one (1) Behavior Analyst supervising Comprehensive treatment without support by a BCaBA is 15 - 24. Additional BCaBAs permit modest increases in caseloads.

Focused treatment for severe problem behavior is complex and requires considerably greater levels of case supervision, which will necessitate smaller caseloads. Additional BCaBAs permit modest increases in caseloads.

The recommended caseload range for one (1) Behavior Analyst supervising Focused treatment with support of one (1) BCaBA is 12 - 16. Additional BCaBAs permit modest increases in caseloads.

The recommended caseload range for one (1) Behavior Analyst supervising Comprehensive treatment with support of one (1) BCaBA is 16 - 24. Additional BCaBAs permit modest increases in caseloads.

Additional BCaBAs permit modest increases in caseloads.

Focused treatment for severe problem behavior is complex and requires considerably greater levels of case supervision, which will necessitate smaller caseloads. Additional BCaBAs permit modest increases in caseloads.
SECTION 7: WORKING WITH CAREGIVERS AND OTHER PROFESSIONALS

Family Members/Others as Important Contributors to Outcomes

Family members, including siblings, and other community caregivers should be included in various capacities and at different points during both Focused and Comprehensive ABA treatment programs. In addition to providing important historical and contextual information, caregivers must receive training and consultation throughout treatment, discharge, and follow-up.

The need for family involvement, training, and support reflects the following:

- Caregivers frequently have unique insight and perspective about the client’s functioning, preferences, and behaviors.
- Caregivers may be responsible for ensuring the safety of their children and/or implementing procedures at night and may be at risk for sleep deprivation and sleep disturbance, which can affect their ability to support treatment goals outside treatment hours.
- Caring for an individual with ASD presents many challenges to caregivers and families.

Problems associated with sleep deprivation: care providers must be aware of the importance of sleep and its impact on caregivers.

 isset

Contributors to Outcomes

Family Members/Others as Important Contributors to Outcomes

AND OTHER PROFESSIONALS
WORKING WITH CAREGIVERS

SECTION 7:
Training of parents and other caregivers usually involves a systematic, individualized curriculum on the basics of ABA. Training is part of both Focused and Comprehensive ABA treatment models. Although parent and caregiver training is sometimes delivered as a stand-alone treatment, there are relatively few clients for whom this would be recommended as the sole form of treatment. This is due to the severity and complexity of behavior problems and skill deficits that can accompany a diagnosis of ASD. Treatment is not a replacement for professionally directed and implemented treatment. Note that while family training is supportive of the overall treatment plan, it is not a replacement for improved levels of functioning and independence toward improved levels of functioning and independence.

Other caregivers usually involve a systematic, individualized curriculum on the basics of ABA. Training is part of both Focused and Comprehensive ABA treatment models. Although parent and caregiver training is sometimes delivered as a stand-alone treatment, there are relatively few clients for whom this would be recommended as the sole form of treatment. This is due to the severity and complexity of behavior problems and skill deficits that can accompany a diagnosis of ASD. Treatment is not a replacement for professionally directed and implemented treatment. Note that while family training is supportive of the overall treatment plan, it is not a replacement for improved levels of functioning and independence toward improved levels of functioning and independence.
The following are common areas for which caregivers often seek assistance. These are typically addressed in conjunction with a focused or comprehensive ABA treatment program.

- Generalization of skills acquired in treatment settings into home and community settings
- Treatment of co-occurring behavior disorders that risk the health and safety of the child or others in the home or community settings, including education of self-injurious or aggressive behaviors against siblings, caregivers, or others
- Establishing or reestablishment of replacement behaviors
- Treatment of co-occurring behavioral disorders that risk the health and safety of the child or others in the home or community settings
- Induction into routines, participation in educational or employment programs
- Identification and management of individual and family factors that influence progress
- Coordination with Other Professionals

Consultation with other professionals helps ensure client progress through efforts to coordinate care and ensure consistency including during transition periods and discharge.

Coordination with Other Professionals

- Relationships with family members, such as developing appropriate play with siblings
- Functional replacement behaviors as previously described
- Contingency management to reduce stereotypic, ritualistic, or perseverative behaviors and
- Inclusion of strategies for maintaining good health (for example, participation in dental and medical exams, feeding, sleep)
- Adaptive skills training with functional communication, participation in routines, and
- Behaviors against siblings, caregivers, or others, establishment of replacement behaviors
- Treatment of co-occurring behavioral disorders that risk the health and safety of the child or others in the home or community settings
- Induction into routines, participation in educational or employment programs
- Identification and management of individual and family factors that influence progress
- Coordination with Other Professionals

Different differences in theoretical orientations or professional styles may sometimes make coordination of behaviors across environments and settings, professional and different disciplines, more challenging. Another example involves ensuring a consistent approach to treatment across professionals from treatment settings. Between the prescribing physician and the behavior analyst, it is necessary to determine the effects of medication and coordination among all healthcare providers and professionals. Examples include collaboration during transition periods and discharge.

Treatment goals are most likely to be achieved when there is a shared understanding and coordination with other professionals. This helps ensure client progress through efforts to coordinate care and ensure consistency during transition periods and discharge.
The BACB’s ethical codes (the current Guidelines for Responsible Conduct for Behavior Analysts and the impending Professional and Ethical Compliance Code for Behavior Analysts) require the Behavior Analyst to recommend the most effective scientifically supported treatment for each client. The Behavior Analyst must also review and evaluate the likely effects of alternative treatments, including those provided by other disciplines as well as no treatment.

In addition, Behavior Analysts refer out to professionals from other disciplines when there are client conditions that are beyond the training and competence of the Behavior Analyst, or where coordination of care with such professionals is appropriate. Examples would include, but are not limited to, suspected medical conditions or psychological concerns related to anxiety or mood disorder.
SECTION 8: DISCHARGE, TRANSITION PLANNING, AND CONTINUITY OF CARE

The desired outcomes for discharge should be specified at the initiation of services and reviewed and evaluated and discharge planning began when:

- The client has achieved treatment goals;
- The client no longer meets the diagnostic criteria for ASD (as measured by appropriate standardized protocols);
- The client does not demonstrate progress towards goals for successive authorization periods;
- The family is interested in discontinuing services;
- The family and provider are not able to reconcile important issues in treatment planning and delivery;
- The family is interested in discontinuing services.

When there are questions about the appropriateness or efficacy of services in an individual case, including pursuant to any internal or external appeals relating to insurance benefits, the reviewing body should include a Behavior Analyst with experience in ABA treatment of ASD.

Discharge services should be reviewed and evaluated and discharge planning began when:

- The client has achieved treatment goals; OR
- The client no longer meets the diagnostic criteria for ASD (as measured by appropriate standardized protocols); OR
- The client does not demonstrate progress towards goals for successive authorization periods; OR
- The family is interested in discontinuing services; OR
- The family and provider are not able to reconcile important issues in treatment planning and delivery.

When there are questions about the appropriateness or efficacy of services in an individual case, including pursuant to any internal or external appeal relating to insurance benefits, the reviewing body should include a Behavior Analyst with experience in ABA treatment of ASD.

Discharge and transition planning from all treatment programs should generally involve a gradual step down in services. Discharge from a Comprehensive ABA treatment program often requires 6 months or longer. For example, a client in a Comprehensive treatment program might step down to a 6 months

A description of roles and responsibilities of all providers and effective dates for behavioral targets must be achieved prior to the next phase. The transition planning should be specified and coordinated with all providers, the client, and family members.

The desired outcomes for discharge should be specified at the initiation of services and reviewed and evaluated and discharge planning began when:

- The client has achieved treatment goals;
- The client no longer meets the diagnostic criteria for ASD (as measured by appropriate standardized protocols); OR
- The client does not demonstrate progress towards goals for successive authorization periods; OR
- The family is interested in discontinuing services; OR
- The family and provider are not able to reconcile important issues in treatment planning and delivery.

When there are questions about the appropriateness or efficacy of services in an individual case, including pursuant to any internal or external appeal relating to insurance benefits, the reviewing body should include a Behavior Analyst with experience in ABA treatment of ASD.
APPENDIX A:

ELIGIBILITY REQUIREMENTS FOR BACB CERTIFICATION

BCBA Eligibility Requirements

A. Degree Requirement (effective 2016)

Possession of a minimum of a master's degree from an accredited university that was (a) conferred in behavior analysis, education, or psychology, or (b) conferred in a degree program in which the candidate completed a BACB approved course sequence.

B. Coursework and Experience Requirements

1. Coursework:

   - Ethical and Professional Conduct – 45 hours
     The content must be taught in 1 or more freestanding courses devoted to ethical and professional conduct.
   - Concepts and Principles of Behavior Analysis – 45 hours
     The content must be taught in 1 or more freestanding courses devoted to ethical and professional conduct.
   - Research Methods in Behavior Analysis
     The content should be based on the BACB foundational knowledge list.
   - Applied Behavior Analysis
     The candidate must complete 270 classroom hours of graduate level instruction in the following content areas and for the number of hours specified:
     - Ethical and Professional Conduct – 10 hrs
     - Behavior Change Systems – 10 hrs
     - Intervention & Behavior Change Considerations – 10 hrs
     - Identification of the Problem & Assessment – 30 hrs
     - Procedural – 45 hrs
   - Fundamental Elements of Behavior Change & Specific Behavior Change Procedures – 45 hrs
   - Discretionary – 30 hours
     (any one or more of the content areas above OR for any applications of behavior analysis)

2. Experience:

   - 4000 hours of direct supervised experience in applied behavior analysis

3. Certification:

   - BACB Certification (effective 2016)
The content should be based on the BCBA foundational knowledge list.

2: Concepts and Principles of Behavior Analysis – 45 hours

3: Ethical and Professional Conduct – 15 hours

The applicant must complete 180 classroom hours of instruction in the following content areas and for the number of hours specified:

B. Coursework and Experience Requirements

Possession of a minimum of a bachelor’s degree from an accredited university.

A. Degree Requirement

BCBA Eligibility Requirements

BCBA-D Eligibility Requirements

The BCBA-D is a designation that recognizes doctoral-level BCBA who:

1. Are actively certified as a BCBA; AND
2. Have earned a doctoral degree from a graduate program accredited by the Association for Behavior Analysis International; OR
3. Have earned a doctoral degree from an accredited university in which he or she conducted a behavior analysis dissertation (including at least 1 experiment); AND passed at least 2 behavior analysis courses as part of the doctoral program of study; AND met all BCBA coursework requirements prior to receiving the doctoral degree.

B. Coursework

A. Degree Requirement

BCBA-D Eligibility Requirements

Two additional pathways to the BCBA credential exist for university faculty and senior, doctoral-level practitioners. Details on these pathways are available at www.BACB.com.
4. Research Methods in Behavior Analysis

s. Measurement Including Data Analysis
   ● Experimental Design – 5 hrs
   ● Measurement (including data analysis) – 10 hrs
   OR
   Required
   • Weekly supervision
   • University based
   • Intensive Practicum
   500 hours
   OR
   Required
   • Weekly supervision
   • University based
   • Practicum
   670 hours
   OR
   Required
   • Biweekly supervision required
   • Fieldwork, Supervised Independent
   1000 hours

5. Experience:

   2. Experience:

   c. Research Methods in Behavior Analysis

   d. Applied Behavior Analysis

   e. Discretionary – 15 hours

   • Implementation, Management and Supervision – 5 hrs
   • Intervention & Behavior Change Considerations – 5 hrs
   • Identification of the Problem & Assessment – 30 hrs
   • – 45 hrs

   • Fundamental Elements of Behavior Change & Specific Behavior Change Procedures

   • Experimental Design – 5 hrs

   • Measurement (including data analysis) – 10 hrs

   (any one or more of the content areas above OR for any applications of behavior analysis)
APPENDIX B: SELECTED BIBLIOGRAPHY


Throughout this document the term Autism Spectrum Disorder (ASD) is used to refer to a group of complex neurological disorders that are sometimes referred to as Autistic Disorder, Pervasive Developmental Disorder Not Otherwise Specified, Asperger’s Syndrome, High Functioning Autism, among others.

See also consumer guidelines for identifying Behavor Analysts with competence in treating ASDs from the Autism Speaced.

Briefly described, review direct observation data at least weekly.

Given the intensity of the program, frequent review of the data and the treatment plan are needed. The Behavior Analyst should generally review direct observation data at least weekly.

Policies and procedures at the agency, state, and national levels.

Depending on the needs of the individual client, Behavior Technicians may also receive training in commercially available behavior management programs for aggression and assaultive behavior. Other training may relate to informing employees of the management programs for aggression and assaultive behavior. Other training may relate to informing employees of

A single case, each Behavior Technician may also work with several clients across the week.

When possible, several Behavior Technicians are then assigned to each case to promote generalized and sustained treatment benefits for the client. This also helps prevent a lapse in treatment hours due to staff illness, scheduling

The training and responsibilities of Behavior Technicians who implement treatment protocols are distinctly different from those of workers who perform caregiving functions.

The Behavior Analyst should generally review direct observation data at least weekly.

Behavior Technicians, senior therapists, professional level, or direct line staff.

The staffs are competent to administer treatment protocols and are often referred to by a variety of terms including AB

Focused and comprehensive ABA exists on a continuum that reflects the number of target behaviors and hours of direct treatment and supervision.

ICD and DSM systems for Autism Disorder and Autism Spectrum Disorder.

ASD, or Autism Spectrum Disorder, is a term used to refer to a group of complex neurological development disorders that are sometimes referred to as Autistic Disorder, Pervasive Developmental Disorder Not Otherwise Specified.

APPENDIX C:

FOOTNOTES

1 Throughout this document the term Autism Spectrum Disorder (ASD) is used to refer to a group of complex neurological
Development of the Guidelines

The BACB Board of Directors authorized the development of practice guidelines for ABA treatment of ASD in early 2012. The following procedures were followed to develop the initial and revised versions of the guidelines.

Version 1.0:
The original project coordinator and BACB leadership identified a team of five commissioners who were all subject matter experts in ABA as evidenced by publication records, substantial experience providing ABA services, and leadership positions within the discipline. The coordinator then created a five-person oversight committee that designed the overall development process and content outline. The oversight committee then solicited additional members from a national pool of experts that designed the overall development process and content outline. The oversight committee oversaw the initial guidelines and, using a consensus process, proposed revisions and additions to the document to enhance clarity and applicability. The project coordinator and BACB staff then generated a revised draft that was sent to the project coordinator, revision team members, and public policy reviewers. The initial guidelines were then reviewed by members of the ABA treatment of ASD treatment team and all BACB directors for additional input. The project coordinator and BACB staff then used this feedback to produce the final document, which was approved by the BACB Board of Directors. The professionals who served as coordinator, oversight committee members, content-area leaders, content writers, and reviewers were all subject matter experts in ABA as evidenced by publication records, substantial experience providing ABA services, and leadership positions within the discipline. The project coordinator was appointed who then created a five-person oversight committee that designed the overall development process and content outline. The coordinator then solicited additional members from a national pool of experts that designed the overall development process and content outline. The oversight committee oversaw the initial guidelines and, using a consensus process, proposed revisions and additions to the document to enhance clarity and applicability. The project coordinator and BACB staff then generated a revised draft that was sent to the project coordinator, revision team members, and public policy reviewers. The initial guidelines were then reviewed by members of the ABA treatment of ASD treatment team and all BACB directors for additional input. The project coordinator and BACB staff then used this feedback to produce the final document, which was approved by the BACB Board of Directors. The professionals who served as coordinator, oversight committee members, content-area leaders, content writers, and reviewers were all subject matter experts in ABA as evidenced by publication records, substantial experience providing ABA services, and leadership positions within the discipline.

Version 2.0:
The original project coordinator and BACB leadership identified a team of doctoral-level behavior analysts, all of whom were experts in the ABA treatment of ASD. The team carefully reviewed the initial guidelines and, using a consensus process, proposed revisions and additions to the document to enhance clarity and applicability. The project coordinator was appointed who then created a five-person oversight committee that designed the overall development process and content outline. The coordinator then solicited additional members from a national pool of experts that designed the overall development process and content outline. The oversight committee oversaw the initial guidelines and, using a consensus process, proposed revisions and additions to the document to enhance clarity and applicability. The project coordinator and BACB staff then generated a revised draft that was sent to the project coordinator, revision team members, and public policy reviewers. The initial guidelines were then reviewed by members of the ABA treatment of ASD treatment team and all BACB directors for additional input. The project coordinator and BACB staff then used this feedback to produce the final document, which was approved by the BACB Board of Directors. The professionals who served as coordinator, oversight committee members, content-area leaders, content writers, and reviewers were all subject matter experts in ABA as evidenced by publication records, substantial experience providing ABA services, and leadership positions within the discipline.
Parent Guidelines

Providing Treatment for Individuals Diagnosed with Autism Spectrum Disorder

Behavioral Analysis

Autism Spectrum Special Interest Group (SIG) of the Association for Behavior Analysis
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Please visit www.autismline.org and/or www.behavior.org for more information.

There are two websites which provide parent/guardians with information about autism treatments.

Although it is not the purpose of these guidelines, the Autism SIG urges parents/guardians to inquire about scientific support for all treatments for individuals diagnosed with autism spectrum disorder.

Research has long documented the effectiveness of methods based upon Applied Behavior Analysis (ABA) in the education and treatment of individuals diagnosed with autism spectrum disorder. However, many interventions for individuals diagnosed with autism spectrum disorder have not been shown to be effective with empirical research while others have been shown to be ineffective. Therefore, an evidence-based framework for the Association for Behavior Analysis (ABA) has been developed to provide evidence-based interventions for individuals with autism spectrum disorder (ASD).

The Autism Special Interest Group (SIG) of the Association for Behavior Analysis International.

About the Autism Special Interest Group
appropriate regulatory bodies.

3. All parents/guardians are encouraged to report unprofessional and/or unethical behavior to
   provider.

2. All parents/guardians are encouraged to obtain references from any potential service
   provider with their children.

1. All parents/guardians should exercise extreme caution when choosing a service provider.

Consumer Advisory
The Autism SIG recommends not working with professionals who provide ABA services as well as other interventions that have not been shown to be effective in studies published in scientific journals or have little objective evidence that they work.

Parents/guardians should be aware that courses from universities are not the same as Certification.

Commission of Certifying Agencies or the American National Standards Institute.

There are other certifications that may not meet BACB@ standards. Therefore, parents/guardians need to be cautious with these certifications.

Parents/guardians need to know that there are more certifications available that may not be equal to the BACB@ certifications.

Parents/guardians need to take into account the training and education that may be available to the professionals.

The BACB@ has two certifications: Board Certified Assistant Behavior Analysts (BCBA@) and Registered Behavior Technicians (RBT@) both of which are not qualified to supervise ABA based programs for individuals diagnosed with ASD, as recommended by the Association.

The document provides guidelines for parents to determine who may be qualified to supervise ABA based programs for individuals diagnosed with ASD.

The trademarks “Behavior Analyst Certification Board®” and “BCBA®” are owned by the Behavior Analyst Certification Board® and “Register Behavior Technician®” and “RBT®” are owned by the Behavior Analyst Certification Board®.
What Is a Supervisor’s Role?

I. A supervisor develops intervention plans to target language, social, academic, self-help, and leisure development.

II. A supervisor develops behavioral intervention plans to help reduce disruptive behaviors (e.g., stereotypy, self-stimulation, aggression, self-injurious, elopement, PICA, non-compliance).

III. A supervisor trains staff and family members in the implementation of various interventions.

IV. A supervisor assists in future planning and helps the team consider next environments and future-relevant skills.

V. A supervisor consistently evaluates the progress of the individual diagnosed with ASD.

VI. A supervisor monitors the performance of the staff and parents/family members.

VII. A supervisor provides ongoing training on the plans and programs (stated above).

VIII. Plans (stated above),
The parent/guardian should verify licensure with the governmental agency.

Regulations may not align with the BACB®.

It should also be noted that some regulations align with the BACB® and some
It should be noted that the regulations and licensing vary from state to state.

The majority of the members of the governmental agency should be BCBAs® or BCBA-D.
The governmental agency should have at least the same requirements as the BACB®.

The professional must not be at an assistant level or a technician level.

a. The professional is licensed by a governmental agency (e.g., state or regional licensing

b. Board (BCBA®)

c. Ensure that under the certification column it states BCBA® or BCBA-D® (not a

b. Both a BCBA® or a BCBA-D® must be certified by the Behavior Analyst Certification

a. The professional is currently certified as a Board Certified Behavior Analyst (BCBA®)

b. Overview

Individuals Diagnosed with ASD

Who is Qualified to Supervise an ABA-Based Program For

To an initial and effective supervisor, a professional must have advanced training and

Option One

Option Two
Option Four

Documentation of supervision and training

○ Syllabi from university graduate courses
○ Transcripts from university graduate courses
○ Certification from the American Board of Professional Psychology

Methods of verification of training and competence:

- Desirable.

Option Three

- All training needs, at a minimum, to be comparable to the training and education that is equivalent to CBAB/ABA and BCBA-D training; however, more extensive training is desirable.
- The licensed psychologist should demonstrate competence in ABA.
- The licensed psychologist should have training in ABA.
- The professional could be a licensed psychologist by a governmental agency.
Training a Professional Should Have Prior to Supervising

- Self-management skills
- Self-care skills
- Personal safety skills
- Community living skills
- Motor skills
- Vocational skills
- School readiness skills
- Pre-academic and academic skills
- Play and leisure skills
- Reduction of disruptive behaviors
- Language/Functional Communication Skills

Learning how to learn skills

Training on interventions to address following skills for individuals diagnosed with ASD:

a. Training should help develop following skills:

b. Training should help develop following skills:

Continuing Training

- Training on interventions to address following skills for individuals diagnosed with ASD that have not yet to be effective in peer-reviewed studies.
- Training on interventions to address following skills for individuals diagnosed with ASD that have not yet to be effective in peer-reviewed studies.
- Training on interventions to address following skills for individuals diagnosed with ASD that have not yet to be effective in peer-reviewed studies.
- Training on interventions to address following skills for individuals diagnosed with ASD that have not yet to be effective in peer-reviewed studies.

The supervisor who meets one of the four options stated above.

a. Five years of providing ABA intervention for individuals diagnosed with ASD under a supervisor who meets one of the four options stated above.

b. The professional should be in the delivery of ABA services as it relates to individuals diagnosed with ASD.

The professional should have at least 1000 hours of hands on training.

The professional should have been supervised by a person that meets one of the four options stated above.
The supervisor has worked collaboratively with professionals from other disciplines (e.g.,

1. The supervisor has evidence demonstrating ABA-Based interventions to at least 5 different family members using ABA-Based Procedures.
2. The supervisor has evidence demonstrating ABA-Based interventions using ABA-Based Procedures.
3. What behavior is the child exhibiting?
4. How to minimize the occurrence of disruptive behaviors.
5. What behavior is the child exhibiting?
6. The supervisor conducts functional assessments to determine:

   a. Augmentative Communication
   b. Choice
   c. Preference Assessment
   d. Stimulus Control
   e. Motivating Operations
   f. Error Correction
   g. Errorless Teaching
   h. Prompting
   i. Scripts and Storytelling
   j. Activity Schedules
   k. Chaining
   l. Task Analysis
   m. Incidental Teaching
   n. Modeling
   o. Discrete Trial Teaching
   p. Extinction/Reinforcement
   q. Reinforcement/Reward

The supervisor has implemented ABA-Based Procedures with one child and the teacher alone.

ASD can display behaviors across various settings, time, individuals, and materials.

The supervisor has implemented ABA-Based Procedures in a manner that the individual with

ASD has implemented ABA-Based Procedures in a manner that the individual with

or with one teacher and multiple children together all at once.

The supervisor has implemented ABA-Based Procedures with one child and the teacher alone.

Additional Document Experience and Competence
Parents should ask for documentation of continuing education training.

Ongoing Training

b. The CEUs should be in the following:

1. Earn continuing education credits (CEUs).

c. General Warning:

- Knowledge of evidence of other procedures.
- State and federal laws.
- Curriculum development standards.
- Ethical behavior from multiple disciplines.
- Screening, diagnosis, and evaluation of individuals diagnosed with ASD.
- Diagnosis of individuals with ASD and their families.
- Best scientific evidence in ASD as it relates to implementing interventions to individuals.
conferences on ABA interventions.

3. Publishing studies of treatment effects in peer-reviewed journals.

III. c. Overseeing programs for individuals diagnosed with ASD

b. Implementing programs for individuals diagnosed with ASD

4. Designing programs for individuals diagnosed with ASD

II. Experience in:

1. At least 10 years of professional experience following receiving their degree which includes

   e. The Autism SIG

   d. Regional ABA Chapters (e.g., MobA, CalA, MassA)

   c. American Psychological Association-Division 25 (APA)

   b. Association for Behavior Analysis International (ABAI)

   a. Association of Professional Behavior Analysts (APBA)

II. Is the supervisor a member of any professional organizations?

Professional is Qualified

Other Considerations for Parents to Determine if a
Association of Professional Behavior Analysts (APBA)

A professional membership organization whose mission is to promote and advance the science-based practice of applied behavior analysis. (APBA)

Association for Behavior Analysis Informational (ABAI)

A professional membership organization for those interested in the philosophy, science, application, and teaching of behavior analysis. ABAI is also the primary membership organization for those interested in the field of professional psychology who demonstrate competence in applied behavior analysis.

American Board of Professional Psychology (ABPP)

A professional organization whose mission is to increase consumer awareness and support the development of competent professionals. ABPP is also responsible for the accreditation of training programs in behavior analysis at the bachelor’s, master’s, and doctoral levels. The Accreditation Board operates as a board of the Association for Behavior Analysis Informational (ABAI) (Accreditation Board) and is governed by representatives from the Accreditation Board of the ABPP (Accreditation Board) and the Association for Behavior Analysis Informational (ABAI).

Glossary of Terms
Improving the individual’s behavior.

Behavior Interventions Plan. A behavior intervention plan (BIP) considers the data gathered through an individual’s functional behavior assessment (FBA) and employs that data to create a plan of action toward changing and

Interventions.

Certified Assistant Behavior Analysts, Registered Behavior Analysts, and others who provide behavior-analytic interventions.

They are independent practitioners who provide behavior-analytic services (BCBA-Ds supervise the work of Board-Certified Behavior Analysts with doctoral training in behavior analysis, Board-Certified Behavior Analysts-and coaches who provide behavior-analytic services. These independent practitioners do not require supervision by a Board-Certified Behavior Analyst. They may work at the graduate level or at the professional level. They are not Board-Certified Behavior Analysts, and they may implement behavior-analytic interventions.

Board-Certified Behavior Analysts can supervise the work of Registered Behavior Technicians, who at the same level cannot supervise. They must be supervised by someone certified at the Board-Certified Level (BCBA). One must be a graduate-level Board-Certified Behavior Analyst (BCBA) to supervise the work of Board-Certified Behavior Analysts and others who provide behavior-analytic services.

Board-Certified Behavior Analysts are a graduate-level Board-Certified Behavior Analyst (BCBA) can supervise the work of Board-Certified Behavior Analysts and others who provide behavior-analytic services. In addition, Board-Certified Behavior Analysts can implement behavior-analytic interventions at the graduate level. Board-Certified Behavior Analysts are independent practitioners who provide behavior-analytic services and who can be certified at the Board-Certified Level (BCBA). One must be a graduate-level Board-Certified Behavior Analyst (BCBA) to supervise the work of Board-Certified Behavior Analysts and others who provide behavior-analytic services.

Behavior Analyst Certification Board (BACB) is a graduate-level Board-Certified Behavior Analyst (BCBA) to supervise the work of Board-Certified Behavior Analysts and others who provide behavior-analytic services.

Autism Interest Group (AIG). An organization of professionals who are part of ABA that has been created to promote evidence-based practices in individuals diagnosed with ASD.

Augmentative and Alternative Communication (AAC). A communication method used to supplement or replace spoken or written language and to facilitate effective communication in an individual with developmental disabilities. AAC can be used in conjunction with other modalities and techniques to enhance the individual's ability to communicate. AAC includes a variety of techniques and devices, such as written language, sign language, and auditory feedback. It is used to enhance the individual's ability to communicate and to facilitate effective communication in a variety of settings, including schools, workplaces, and homes. AAC can be used by individuals with a wide range of developmental disabilities, including autism spectrum disorders, intellectual disabilities, and cerebral palsy. AAC is a powerful tool for individuals with communication disorders, as it provides a means of expressing thoughts and feelings and of interacting with others. It is important to ensure that individuals with communication disorders receive appropriate training and support in the use of AAC. This can be achieved through the use of specialized AAC devices, software, and applications, as well as through the provision of training and support to individuals and their families. AAC is a complex field, and it is important to consider the individual's specific needs and preferences when selecting and implementing AAC strategies. This can be achieved through the use of a multidisciplinary approach, involving a team of professionals, including speech-language pathologists, occupational therapists, and psychologists, as well as the individual and their family.
Inclusion, but are not limited to, sitting, putting, giving back toys, and responding to the word “no.”

Learning How to Learn Skills: Behaviors that help an individual better understand the learning process. Skills

Communication Skills:

Language/Functional Communication Skills: Behaviors that are taught to improve an individual’s language and communication skills.

Diagnosed with ASD:

Intervention Plan: A plan that is developed by the supervisor on how to teach different behaviors to the individual.

Hands on Teaching: Training that involves direct implementation with an individual or individuals diagnosed with ASD.

Governmental Agencies: A governing body that oversees professionals in a given field that is regulated by either a given state or that is regulated by the federal government.

The effects on the targeted behavior.

Functional Assessment: A procedure with which a professional determines why a behavior or behaviors are provided. (e.g., saying “No!” when an error is made.

Error Correction: A teaching procedure in which the professional allows the individual to make mistakes and make.

Extinction/Guidance: Anytime that the professional does not provide (e.g., withhold) a reward or reinforcement when

upon the learner’s response.

Discrete Trial Teaching: A systematic form of intervention which is commonly included with other treatment approaches/protocols to teach individual skills. Each discrete trial consists of 1) instructions from the therapist (2) a response by the learner (3) a consequence from the therapist based include; but are not limited to, opening food at a restaurant, banking skills, and crossing the street.

Community Living Skills: Behaviors that are taught so an individual can function in the community. These skills can

Continuing Education Units (CEUs): Training opportunities that professionals take to increase and sustain their

Choice: Providing individuals with opportunities to select an item/activity to work towards or a variety of activities

backwards chaining (and systematically introducing additional steps in a gestalt process).
Regulated Behavior Technician (RBT)®

The RBT role is to provide a safe learning environment and support students who may exhibit challenging behaviors. Teachers and other staff can use the RBT to intervene in classrooms and programs to help students develop positive social skills and behaviors. The RBT is responsible for:

- Implementing classroom management strategies
- Providing positive reinforcement
- Facilitating successful learning environments
- Supporting students with special needs
- Working collaboratively with other professionals
Vocational Skills: Behaviors that are taught to prepare an individual for a job/career. These can include, but are not limited to:

Technician Level: A professional whose sole duty is to implement behavioral intervention.

Task Analysis: If involving a large behavior (e.g., brushing teeth) and breaking it down into steps (e.g., first you do this, then you do this), the behavior(s) the professional and parent(s) are currently targeting for intervention.

Target Behaviors: The behaviors that are taught to improve social relationships with peers and others. These skills can include:

and training parents/guardians.

Supervisor: A professional that is in charge of developing an individual’s program, supervising staff on that program.

Social Skills: Behaviors that are taught to improve social relationships with peers and others. These skills can include:

and time out.

Families.

Service Provider: A professional who provides intervention or supervision to individuals diagnosed with ASD and their families.

Self-Management Skills: Behaviors that are taught so an individual can manage his or her day.

Self-Care Skills: Behaviors that are taught so an individual can take care of him or herself. These skills include, but are not limited to:

Brushing teeth and toileting.

Scarb and Script Finding: Scripts are verbal statements in either written or in audio format. An individual is taught to use the scripts they are taught, typically one word at a time, from top to bottom (e.g., "What is the park? Play on the table.

Behavioral Evidence: Evidence which serves to either support or counter a scientific theory or hypothesis. Such evidence is expected to be empirical evidence in accordance with scientific method. Standards for such evidence are generally based on the results of statistical analysis, and the strength of scientific consensus.

Scientific Evidence: Evidence which serves to either support or counter a scientific theory or hypothesis. Such evidence is expected to be empirical evidence in accordance with scientific method. Standards for such evidence are generally based on the results of statistical analysis, and the strength of scientific consensus.

Behavioral Evidence: Evidence which serves to either support or counter a scientific theory or hypothesis. Such evidence is expected to be empirical evidence in accordance with scientific method. Standards for such evidence are generally based on the results of statistical analysis, and the strength of scientific consensus.

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<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was the initial supervision conducted by a supervisor from one of the four options stated above (pp. 7-8)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interventions with individuals with ASD?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did the initial training consist of implementing ABA-based training?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did the professional have at least 1000 hours of initial training?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you have one check mark in the yes box then proceed to Part C. If any of the rows have a „No“ then the professional is not qualified to supervise according to these guidelines.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did the professional complete a graduate program that is accredited by ABAI and all other requirements from option four (p. 8)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the professional a licensed psychologist and meets all other requirements from option three (p. 172)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>From option two (p. 7)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the professional licensed by a governing agency to practice behavior analysis and meets all other requirements from option three (p. 172)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the professional a BCBA or a BCBA-D?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you have one check mark in the yes box then proceed to Part C. If any of the rows have a „No“ then the professional is not qualified to supervise according to these guidelines.
## Supervision Determination Checklist for Parents According to Autism SIG Guidelines

### Part C (Continuing Training)

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the professional have at least 5 years of providing ABA-based intervention under the supervision of another professional who meets the qualifications stated above?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did the training include the use of assessment and intervention(s) found in peer-reviewed studies or that have not been reviewed in peer-reviewed studies?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did the training include how to teach learning how to learn, living, personal safety, self-care, self-management skills, academic, school readiness, vocational, motor, communicative, disruptive behaviors, play and leisure, pre-academic and social, language/functional communication, education of pre-academic and academic skills?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you have one check mark in the yes box then proceed to Part D. If any of the rows have a "No", then the professional is not qualified to supervise according to these guidelines.
### Supervision Determination Checklist for Parents According to Autism SIG Guidelines

#### Part D (Additional Training)

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Has the professional had experience implementing multiple ABA-based procedures?</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Has the professional had experience teaching multiple target behaviors?</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Has the professional worked with at least 8 individuals diagnosed with ASD?</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Has the professional worked with a variety of individuals diagnosed with ASD across age and functioning levels?</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Has the professional had experience with the 18 teaching procedures (p. 10; note: some may not be applicable for procedures (p. 10; note: some may not be applicable for teaching ABA-based procedures)?</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Has the professional had experience teaching multiple target behaviors?</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you have one check mark in the Yes box then proceed to Part E. If any of the rows have a "No" then the professional is not qualified to supervise according to these guidelines.
## Supervision Determination Checklist for Parents According to Autism SIG Guidelines

### Part E (Continuing Education)

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did any of the CEUs relate to ensuring ethical behavior?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did some of the CEUs consist of ABA-based intervention as it applies to individuals diagnosed with ASD?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can the professional provide proof of CEUs?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Supervision according to these guidelines.*

*If there was a “No” marked on any of the rows then the professional is not qualified to forth by these guidelines has been met.*

*If there was a “No” marked on any of the rows then the professional is not qualified to.*

*Although the Autism SIG cannot determine if any professional is truly forth on this document. Although the Autism SIG cannot determine if any professional is truly forth on this document.*

*If you have one check mark in the Yes box, then the professional has met all of the criterion set forth on this document.*

*Although the Autism SIG cannot determine if any professional is truly forth on this document.*

*If you have one check mark in the Yes box, then the professional has met all of the criterion set forth on this document.*
What is applied behavior analysis?

Applied behavior analysis (ABA) is a methodology that involves the application of basic behavioral practices (positive reinforcement, repetition, and prompting) to facilitate the development of language, positive skills, and social behaviors. ABA also helps reduce everyday social problems and serious behavior disorders.

Data collected and analyzed at May Institute support the findings of hundreds of other studies that indicate ABA is the most effective method to teach children and adolescents with autism spectrum disorders (ASD) and other developmental disabilities, as well as brain injury and other trauma injuries. ABA is also effective in working with individuals with ASD who have been diagnosed with chronic health issues such as diabetes or who have physical disabilities. ABA techniques are used in all environments—work, home, and school.

ABA techniques used?

Outcomes are measured through goal setting. Data collected and analyzed at May Institute support the findings of hundreds of other studies that indicate ABA is the most effective method to teach children and adolescents with ASD and other developmental disabilities, as well as brain injury and other trauma injuries. ABA is also effective in working with individuals with ASD who have been diagnosed with chronic health issues such as diabetes or who have physical disabilities. ABA techniques are used in all environments—work, home, and school.

What type of problems can ABA address?

ABA can be used to teach a variety of skills and positive behaviors, including academic engagement, social skills, and positive behaviors. ABA can be used to teach a variety of skills and positive behaviors. ABA can be used to teach a variety of skills and positive behaviors.

At what age can my child benefit from the ABA approach?

ABA can be effective in working with individuals of all ages. However, research shows that skill development programs that are provided at a young age reduce the likelihood of more severe or dangerous behaviors later in life, foster better outcomes, and can reduce the likelihood of more severe or dangerous behaviors later in life. The teachers also measured sharing a 4-year-old with ASD in a May Center School. Before intervention, Andy tended to play by himself and hoard his toys. When a peer or adult would ask him to share, he would vigorously refuse. This behavior left him very much isolated.

Using ABA techniques, clinical staff helped Andy learn to share and be more agreeable to giving up a toy. At the start of play opportunities, teachers practiced sharing with Andy, gently guiding him to share and praising him each time he did so. As Andy learned to share, teachers periodically prompted him later, when he was with his peers. The teachers also measured sharing among 4-year-olds without ASD in Andy's class. They found that, before intervention, Andy shared far less than his peers. After intervention, Andy shared far less, and his peers' sharing increased. The skills and experience of an ABA professional are essential for success. Continuous and systematic evaluation of effectiveness is a fundamental component of the ABA methodology.
May Institute is a nonprofit organization that provides educational, rehabilitative, and behavioral healthcare services to individuals with autism spectrum disorder and other developmental disabilities, brain injury, and behavioral health needs. Since its founding more than 60 years ago, May Institute has evolved into an award-winning national network that serves thousands of individuals and their families every year at nearly 140 service locations across the country. The Institute operates several schools for children and adolescents with ASD and other developmental disabilities. They are located in Randolph, West Springfield, and Woburn, Massachusetts; and Santa Cruz, California. It also operates a specialized school for children and adolescents with brain injury and neurobehavioral disorders; it is located in Brockton, Massachusetts.

For more information, contact May Institute at 800.778.7601 or info@mayinstitute.org. www.mayinstitute.org

Proven Effectiveness

Effective method to teach children and adolescents

Hundreds of studies indicate that ABA is a highly effective method to teach children and adolescents with autism. According to the National Autism Center’s National Standards Report (2009), data collected through

According to the National Autism Center’s National Standards Report (2009), data collected through the Association for Science in Autism Treatment and endorsed by the National Institute of Health and Developmental Disabilities and the National Institute of Child Health and Human Development, ABA is the most effective method to teach children and adolescents with autism.

Proven Effectiveness

Hundreds of scientific studies have shown that ABA is the most effective method to teach children and adolescents with autism and other developmental disabilities. ABA has been shown to improve social skills, reduce problem behaviors, and increase academic achievement. ABA is a highly effective method to teach children and adolescents.

How can I identify a qualified ABA professional and what should I expect?

Professionals utilizing ABA techniques should have solid practical experience in the field and meet high educational and professional standards—ideally a Ph.D. or Psy.D. May Institute employs some of the most highly trained and experienced ABA professionals in the country. Our nationally recognized ABA experts teach at top universities, publish regularly in professional journals, and have been invited to present at national and international conferences.

Before utilizing ABA practices, qualified professionals should evaluate a child with behavioral problems to identify his or her specific needs for intervention and support. They will observe a child in several situations to determine where and why the problem behavior occurs. Once an evaluation is complete, a recommendation can be made regarding the type of program and setting that is best for the child and the family. Parents who feel their child might be helped by ABA-based practices should take several things into consideration:

- The time and resources of the family
- The severity of the child’s behavior
- The availability of qualified ABA professionals
- The type of program and setting that is best for the child and the family

ABA techniques in schools for children and adolescents with autism and other developmental disabilities. May Institute also uses these programs to provide services using ABA techniques to help individual students, teachers, and classrooms.

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Professionals utilizing ABA techniques in schools for children and adolescents with autism and other developmental disabilities. May Institute also uses these programs to provide services using ABA techniques to help individual students, teachers, and classrooms. ABA is a highly effective method to teach children and adolescents with autism.

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ABA techniques in schools for children and adolescents with autism and other developmental disabilities. May Institute also uses these programs to provide services using ABA techniques to help individual students, teachers, and classrooms. ABA is a highly effective method to teach children and adolescents with autism.
Screening for Autism Spectrum Disorder

The US Preventive Services Task Force (USPSTF) has published new recommendations on screening for autism spectrum disorder (ASD).

What Is Autism Spectrum Disorder?
Autism spectrum disorder is a disorder of brain development in children. It affects a child’s behavior and his or her ability to interact with others. Children with ASD have trouble communicating with and relating to others and may have different interests than children without ASD. Some signs and symptoms of ASD include avoiding eye contact, not playing with other children, repetitive behaviors or interests, and showing an intense focus on certain objects while having no interest in other things. Autism spectrum disorder can range from mild to severe. Symptoms of ASD are usually first seen in the second year of life but can start earlier or later. The February 16, 2016, issue of JAMA contains the new USPSTF recommendations on screening for ASD.

What Tests Are Used to Screen for ASD?
Several tests can be used to screen for ASD in children younger than 30 months. A commonly used tool is the Modified Checklist for Autism in Toddlers—Revised With Follow up (M-CHAT-R/F), which is a questionnaire filled out by parents, with a follow-up questionnaire given by a health care professional if needed. If the results of these screening tests are positive, further diagnostic testing is required.

What Is the Patient Population Under Consideration for Screening for ASD?
The USPSTF recommendation applies to children aged 18 to 30 months who do not have a prior diagnosis of ASD or developmental delay and for whom no concerns about ASD have been raised by parents, other caregivers, or health care professionals.

What Are the Potential Benefits and Harms of Screening for ASD?
The potential benefit of screening for ASD is that diagnosing ASD at an earlier age may lead to earlier intervention and treatment, which typically includes behavioral, educational, and speech/language therapy. There is evidence that earlier intervention and treatment may lead to better outcomes in children with autism detected at an earlier age. The harms of screening and subsequent interventions for ASD are likely to be small but may include anxiety and financial costs associated with misdiagnosis, further testing, and potential interventions.

How Strong Is the Recommendation to Screen for ASD?
Although there is evidence supporting the benefit of early treatment for ASD, there are currently no studies that focus on outcomes in young children identified with ASD through screening alone in whom no concerns for ASD have been raised by family members, caregivers, or health care professionals. The USPSTF concludes that the current evidence is insufficient (called an “I” recommendation) to make a recommendation.

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Autism Parents’ Medication Guide Work Group

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Autism Parents’ Medication Guide Work Group

CO-CHAIRS:
Matthew Siegel, MD and Craig Erickson, MD, MS
Introduction

What is ASD?

Autism spectrum disorder (ASD) is a developmental disorder characterized by problems with social communication and restricted, repetitive behaviors. It is a neurological condition that affects how a person interacts with others and provides challenges in communication, social skills, and behavior.

Why consider medication in ASD?

Medication treatment can help children who have ASD with challenging behaviors such as repetitive movements, self-injury, and aggression. Medications may also improve social interaction and communication. It is important to work with a healthcare provider to determine the appropriate medication and dosages for each child. Medication is most effective when combined with other interventions and therapies.

ASPEN is a medication guide for parents of children with ASD. It provides information on medications that may be helpful for specific symptoms and offers guidance on how to consider medication treatment for your child. This guide is for informational purposes only and should not replace professional medical advice. Always consult a healthcare provider before starting any medication.

Please note: The information provided in this guide is not intended to substitute for professional advice or diagnosis.
Assessment of the Child with ASD Experiencing Emotional or Behavioral Problems

When a challenge presents itself, it is time for an assessment.

Factors may contribute to these emotional and behavioral problems in a child with ASD, it is ideal to have the child assessed by a team whose members can consider different causes and approaches. In reality, most children will benefit from an occupational therapist who evaluates the child to consider multiple sources for the problem, and refer the child for further assessment if needed. 

A thorough assessment of emotional or behavioral problems can be assessed by a physician or other medical provider. Finally, the possible role of communication, family and how family relationships could relate to communication should be considered and a speech and language therapist can perform a formal assessment of language and social communication abilities. Mental health providers can assess the functioning of the child in the school environment and can use applied behavioral analysis or behavioral symptoms can be assessed by

Autism Spectrum Disorder: Parents’ Medication Guide

Assessment of the Child with ASD Experiencing Emotional or Behavioral Problems
Autism Spectrum Disorder: Parents’ Medication Guide

Primary Non-Medication Treatment

Social skills are verbal and nonverbal behaviors necessary for positive and effective social interactions and include eye contact, smiling, and asking questions. Social skills are verbal and nonverbal behaviors necessary for positive and effective social interactions and include eye contact, smiling, and asking questions.

Social Cognitive Training

Social skills are verbal and nonverbal behaviors necessary for positive and effective social interactions and include eye contact, smiling, and asking questions.

Communication supports are tools to help children with ASD communicate. A non-electronic method that has been shown to be successful in helping children with ASD improve communication is Cognitive Behavioral Therapy. A therapist, but parents and teachers may also participate to improve communication. Applied Behavioral Analysis (ABA) is an educational and therapeutic approach that focuses on functional behaviors and developing specific problem behaviors. ABA is often used in schools or on personal computers. It can be used to improve social skills, academic performance, and communication.

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Autism Spectrum Disorder: Parents' Medication Guide

Medication side effects

Medication side effects can certainly contribute to behavioral problems and should be considered prior to the start of any medication. It is important to understand that medication side effects can impact behavior in a child with ASD. It is also important to consider the child’s overall medical condition when deciding on medication.

Life Skills

Life Skills can help address sensory factors. Life Skills are designed to help children with ASD develop the skills needed to function independently in the community. Occupational therapists can assess the child's sensory system and direct these interventions to help address sensory factors.

Sensory Interventions

Sensory Interventions can help address sensory factors. Sensory Interventions can help address sensory factors. In some cases, the child may not be able to express clearly the nature of their pain. When a child experiences pain, it is important to address the source of the pain and ensure that appropriate medical care is sought.

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difficulties and the therapist’s skill.

There is a good fit between the family’s current skills and the therapist’s skills. The therapist adapts the intervention to meet the family’s needs. Family therapy aims to create changes in parent-child interactions.

Several behavioral problems or challenges of raising a child with special needs can be reduced by stress reduction techniques and improving communication skills. Family therapy and parent management training (PMT) and parent management training (PMT) are two types of interventions that focus on parent-child interactions and help parents manage their child’s behavior.

Gastrointestinal discomfort

Gastrointestinal discomfort may be caused by constipation or inflammatory bowel disease. Constipation is by far the most common gastrointestinal problem in children with ASD and should always be considered as a possible source of problems.

Seizures

Seizures are more prevalent in children with ASD than in the general population. Symptomatic seizures can include standing spells, incontinence, and a low pain threshold.

Family Interventions

Interventions intended to provide support and education for families of children with ASD can provide stress reduction to reduce tension in the home environment, which in turn may positively impact the child’s behavior.

Comprehensive treatment should attend to the emotional, social, and behavioral needs of the child. Comprehensive treatment should involve professional support and education for families, as well as support and education for the child.

New interventions or emotional support services may be necessary to help children with ASD manage their emotional and behavioral needs. Family therapy focuses on creating changes in parent-child interactions.

Supportive therapy for parents or families can address the needs of families and their providers about different treatment options. They should also be encouraged to express their feelings and concerns.

Although there is no specific treatment for constipation, the most common gastrointestinal problem in children with ASD is constipation. Parents should always consider the possibility of gastrointestinal problems.
Medication as a Treatment Tool for Emotional or Behavioral Challenges

Medication is often prescribed to help manage symptoms associated with Autism Spectrum Disorder (ASD). It can be used in conjunction with other interventions, such as behavior therapy, to help improve daily functioning and quality of life.

It's important to understand that medication is not a cure for ASD. Rather, it is a tool to help manage symptoms and improve overall well-being. Parents and caregivers should work closely with healthcare providers to find the right medication and dosage for their child.

There are several types of medications used to treat ASD, including stimulants, antidepressants, and mood stabilizers. Each child may respond differently to these medications, so it's important to monitor for any side effects or changes in behavior.

It's crucial for parents and caregivers to be involved in the decision-making process and to communicate with healthcare providers about their child's needs and preferences. This collaboration ensures that the best possible care is delivered.

In addition to medication, other interventions such as occupational therapy, speech therapy, and behavior management strategies can also be effective in managing ASD symptoms. These approaches, when combined with medication, can lead to improved outcomes for individuals with ASD.

Overall, the key is to find a balance that works best for your child. With the right support and guidance, children with ASD can lead fulfilling lives and reach their full potential.
Autism Spectrum Disorder: Parents’ Medication Guide

Which medication will work?

Medication trials (i.e., time-limited periods to predict which medication will be the best option for each individual child) are an important part of the medication treatment process. Most clinicians start at a low dose with your child’s prescriber before slowly increasing the dose to find the medication that is best tolerated by your child. Sometimes it can be helpful to receive treatment-associated improvement. For example, families and clinicians will watch for a positive response. This is a natural reaction. It is important to try to be as objective as possible when assessing placebo effects. Some patients themselves would not know if the child is taking a medication vs. a placebo. The medication is often prescribed in an attempt to improve symptoms, alleviate certain problems, or improve behavior, but they may not always be able to provide a clear picture of how the child’s behavior is changing.

Understanding placebo effects

When to stop a medication

When to stop a medication is a guarded question whether or not there are numerous off-label medications that physicians use to treat problems associated with ASD. The provider should explain to a parent or guardian whether or not a medication is appropriate for a particular problem. The level of evidence supporting the use of a particular medication for a particular problem is often the patients themselves would not know if the child is taking a medication vs. a placebo. The medication is often prescribed in an attempt to improve symptoms, alleviate certain problems, or improve behavior, but they may not always be able to provide a clear picture of how the child’s behavior is changing.

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Parents' Medication Guide

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Parents’ Medication Guide

Effective medications can help reduce or control the problematic behaviors and improve quality of life for children with autism. Before beginning any medication treatment, it is important to have a complete understanding of the risks and benefits. This includes understanding the potential side effects of the medication and how it may impact the child's overall development.

Medication is an option for children who are experiencing severe and persistent behavior problems. Medications can be effective in reducing negative behaviors and improving social interaction and communication. However, it is important to choose the right medication for the child and to monitor its effectiveness regularly.

Antipsychotic medications are commonly prescribed to treat core symptoms of autism, such as repetitive behaviors and aggression. These medications work by blocking dopamine receptors in the brain, which can reduce the intensity of these behaviors. However, they may also cause side effects such as weight gain, sedation, and constipation.

Mood stabilizers are used to treat irritability, aggression, and other emotional symptoms. Mood stabilizers work by regulating the chemicals in the brain, which can help stabilize mood and reduce the frequency of behavior problems. However, they may also cause side effects such as weight gain, drowsiness, and gastrointestinal issues.

Psychostimulants are commonly used to treat attention deficit hyperactivity disorder (ADHD). These medications work by increasing the levels of certain chemicals in the brain, which can improve attention and reduce hyperactivity. However, they may also cause side effects such as sleep disturbance, irritability, and reduced appetite.

It is important to work with a healthcare professional to determine the best medication for your child. Medications should be prescribed and monitored by a qualified healthcare provider.

What if medications fail?

If medications do not work, it is important to consider other treatment options. It is important to have an individualized treatment plan that includes multiple strategies and approaches. This may include behavior therapy, occupational therapy, and other medical interventions. The goal is to find a combination of treatments that works best for your child.

It is important to remember that medications are not the only treatment option for children with autism. A comprehensive treatment plan will likely include a mix of medication, behavior therapy, and other interventions. It is important to work with your child's healthcare provider to develop a treatment plan that is right for your child.
Autism Spectrum Disorder: Parents’ Medication Guide

Symptoms and Medications

Clinicians should evaluate the potential contributing factors to irritability and aggression in a particular child before prescribing medication, as detailed in the assessment section of this guide.

The best evidence for effective treatment of the symptoms associated with ASD is less common in children with ASD than in adults, but it does exist. Some children may benefit from medications prescribed for adults, such as antipsychotics and antidepressants. However, the effectiveness of these medications in children with ASD is not as well established.

Medication can be considered to reduce irritability, tantrums, and aggression in children and adolescents with ASD, some of which are listed below. A table for medications in children with autism is not provided in this guide.

- Irritability, tantrums, and aggression: Medications can be considered to reduce irritability, tantrums, and aggression in children and adolescents with ASD, some of which are listed below. A table for medications in children with autism is not provided in this guide.

- Self-injurious behavior (SIB) can be a significant problem for children with ASD. About 11% of children with ASD are reported to engage in self-injurious behavior. This can be a significant problem for children with ASD and their families. Almost 1% of children with autism will engage in self-injurious behavior. Some children may engage in self-injurious behavior on a daily basis, while others may engage in self-injurious behavior only when they are upset or when they are feeling angry. Self-injurious behavior can be a significant source of stress for parents and caregivers. It can also be a significant source of stress for children with ASD. It is important to address the underlying causes of the behavior and to develop strategies to reduce the behavior.

- Immediate learning and aggression: Immediate learning and aggression are common reasons for children with ASD. Some children with ASD may also have problems with self-regulation. This can be a significant problem for children with ASD and their families. It is important to address the underlying causes of the behavior and to develop strategies to reduce the behavior.

- In this context, the provider's role is as an educator. It is important to educate parents and caregivers about the underlying causes of the behavior and to develop strategies to reduce the behavior. This can be a significant problem for children with ASD and their families. It is important to address the underlying causes of the behavior and to develop strategies to reduce the behavior.

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Autism Spectrum Disorder: Parents’ Medication Guide

Attention deficit hyperactivity disorder (ADHD) medications referred to have shown a stimulant effect. but multiple trials have shown that stimulant medications alone are not sufficient. other medications, including those with non-stimulant effects, are often used in combination. while stimulant medications are effective in treating core symptoms of ADHD, they may be less effective in treating other common comorbid conditions such as anxiety and depression.

For children with inattention, hyperactivity, and impulsivity that do not respond to environmental and/or behavioral approaches, methylphenidate (Ritalin) or dexmethylphenidate (Focalin) may be effective in conjunction with behavioral therapy. Other medications, such as atomoxetine (Strattera), may also be considered for children with ADHD.

For children with repetitive behaviors or stimulatory behavior, clonidine and guanfacine (Tenex) have been used. These medications are typically used in combination with other treatments, such as behavioral therapy.

In cases where non-pharmacological interventions have been unsuccessful, medication may play a role in managing symptoms. It is important to note that medication can have side effects and may need to be adjusted over time. The use of medication should be considered in conjunction with other interventions, such as behavioral therapy and social skills training.

Anxiety and depression can occur in children with ASD. In some cases, medication may be used to manage these symptoms. However, it is important to consider the potential risks and benefits of medication, as well as the role of other interventions, such as therapy and social skills training.

It is important for parents and caregivers to work closely with healthcare providers to determine the best course of treatment for their child. This may involve a combination of medication, therapy, and other interventions, tailored to the specific needs of the child.
of treatment remain the mainstay
including SSRI’s to date, behavioral
strategies are often recommended in
addition to other non-pharmacological
modalities. In addition to behavioral
interventions, there is evidence that
ADHD and should be fully addressed
as well as other co-morbid conditions.


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Research Funding:
The Roche Group,
Cincinnati Children’s Hospital, the John
Merck Fund, Autism Speaks, Angelman
Syndrome Foundation, American Academy
of Child and Adolescent Psychiatry (AACAP),
Simons Foundation, SynapDx

Advisor/Consultant:

Pharmaceuticals, the Roche Group, Alcobra
Books, Intellectual Property:

Indiana University, Cincinnati Children’s Hospital

Other:

(4levqegi yxmg epw)

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Neuren, Roche, Seaside Therapeutics,
SyneuRx International, National Institute
of Mental Health (NIMH), National
Institute of Neurobiological Disorders and
Stroke (NINDS), National Institute of Aging (NIA)

Other:

Forest Pharmaceuticals—data
data safety Monitoring Board for an adolescent
depression study

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No Disclosures

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## Medications such as antidepressants

Medications such as antidepressants including SSRI’s are often effective and
improve anxiety and other emotional
symptoms. However, they may cause side
effects such as sedation and weight gain.

**Insomnia**:
Insomnia appears to be a common
symptom in children with ASD, and
strategies to improve sleep in some
children with ASD have emerged in recent
decades. Behavioral interventions, such as
exposure therapy and cognitivebehavioral
therapy, have shown promise in improving
sleep outcomes. Medications such as
methylphenidate may be used to improve
sleep, although their effectiveness is
variable. Additionally, melatonin has been
shown to improve sleep in some children
with ASD, although more research is needed
to fully understand its mechanism of action.

**Social communication issues**: Social
communication is a core feature of
autism spectrum disorder (ASD),
and strategies to improve social
engagement and communication skills
are commonly recommended. Medications
such as methylphenidate may be used to
improve social communication, although
their effectiveness is variable. Behavioral
interventions, such as social skills training
and social story therapy, have been
used to improve social communication
skills in children with ASD. However,
additional research is needed to fully
understand the effectiveness of these
interventions.

**Psychotic features**: Psychosis is
rarely observed in children with ASD,
and antipsychotic medications are
commonly used to treat psychotic
symptoms, although their effectiveness
is variable. Behavioral interventions, such as
exposure therapy and cognitivebehavioral
therapy, have been shown to improve
psychotic symptoms in some children
with ASD.
## Controlled Medication Studies in ASD

<table>
<thead>
<tr>
<th>Target Symptom(s)</th>
<th>Medication</th>
<th>Controlled Trial in ASD</th>
<th>Participants</th>
<th>Dose (mg/day)</th>
<th>Treatment Response</th>
<th>Side effects Associated with Study Medication</th>
<th>FDA Approval Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repetitive behaviors</td>
<td>Fluoxetine (Prozac)</td>
<td>Hollander et al., 2005</td>
<td>Youth (5–16)</td>
<td>10mg ±4 (2.5–20) [once a day]</td>
<td>YES</td>
<td>None (AEs were less likely on fluoxetine than placebo)</td>
<td>None</td>
</tr>
<tr>
<td>Repetitive behaviors</td>
<td>Citalopram (Celexa)</td>
<td>King et al., 2009</td>
<td>Youth (5–17)</td>
<td>16.5mg ±6.5 (2.5–20) [once a day]</td>
<td>NO (Irritability)</td>
<td>97% on study medication experienced AEs: • Insomnia (38%) • Increased energy (38%) • Diarrhea (26%) • Nausea/Vomiting (19%) • Impulsivity (19%) • Hyperactivity (12%) • Stereotypy (11%) • Nightmares (7%)</td>
<td>None</td>
</tr>
<tr>
<td>Repetitive behaviors</td>
<td>Clomipramine (Anafranil)</td>
<td>Gordon et al., 1993</td>
<td>Youth (6–18)</td>
<td>152mg ±56 (25–250) [in 2 divided doses a day]</td>
<td>YES</td>
<td>• Insomnia (29%) • Constipation (25%) • Sedation (25%) • Tachycardia (21%) • Tremor (17%) • Flushing (17%) • Dry mouth (13%) • Decreased appetite (13%)</td>
<td>None</td>
</tr>
<tr>
<td>Autism</td>
<td>Remington et al., 2001</td>
<td></td>
<td>Youth + Adults (10–36) Youth [10–18] +27/36</td>
<td>128mg (100–150) [in 2 or 3 divided doses a day]</td>
<td>NO</td>
<td>NR</td>
<td>38% (N=12) on study medication terminated treatment due to AEs: • Lethargy (13%) • Tremors (6%) • Tachycardia (3%) • Insomnia (3%) • Diaphoresis (3%) • Nausea/ vomiting (3%) • Anorexia (3%)</td>
</tr>
<tr>
<td>Typical Antipsychotic Agents</td>
<td></td>
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<tr>
<td>ASD</td>
<td>Haloperidol (Haldol)</td>
<td>Anderson et al., 1984</td>
<td>Children (2–6)</td>
<td>1mg (0.5–3) [in 2 divided doses a day]</td>
<td>YES</td>
<td>• Sedation (78%) • Irritability (28%) • EPS (&gt;25%)</td>
<td>None</td>
</tr>
<tr>
<td>ASD</td>
<td></td>
<td>Anderson et al., 1989</td>
<td>Children (2–7)</td>
<td>0.8 ±0.6mg (0.25–4) [in 2 divided doses a day]</td>
<td>YES</td>
<td>• Sedation • EPS</td>
<td>None</td>
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<td>Irritability**</td>
<td>Risperidone (Risperdal)</td>
<td>RUPP, 2002 Youth (5–17) Short-term (8-week)</td>
<td>1.8 ±0.7 mg (0.5–3.5) [in 2 divided doses a day]</td>
<td>YES</td>
<td>Hyperactivity, Stereotypies, Repetitive behaviors</td>
<td>Increased appetite (73%), Fatigue (59%), Sedation (49%), Drooling (27%), Dizziness (16%), Weight gain</td>
<td>None</td>
<td>A=Approved in autism, B=Approved in youth</td>
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<td>Shea et al., 2004 Children (5–12) Short-term (8-week)</td>
<td>1.2 mg [once a day]</td>
<td>YES</td>
<td>Anxiety, Hyperactivity, Inappropriate speech, Social withdrawal, Stereotypies</td>
<td>All participants (100%) on study medication experienced AEs: Somnolence (73%), EPS (28%), Increased appetite (23%), Headache (13%), Constipation (13%), Weight gain (10%)</td>
<td>None</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>RUPP Open-label Continuation Trial</td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>RUPP, 2005</td>
<td>Long-term (6-month)</td>
<td>2.1 ±0.8 mg (up to 4.5)</td>
<td>YES</td>
<td>Repetitive behaviors, Stereotypies, Affective reaction, Sensory response</td>
<td>Increased appetite (6%), Drowsiness (2%), Weight gain (2%)</td>
<td>Constipation (N=1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Williams et al., 2006</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Irritability**</td>
<td>Aripiprazole (Abilify)</td>
<td>Marcus et al., 2009 Youth (6–17) Short-term (8-week)</td>
<td>5–15 mg</td>
<td>YES</td>
<td>Hyperactivity, Stereotypies At higher dose (15 mg/day): Inappropriate speech, Repetitive behaviors</td>
<td>88% on study medication experienced AEs: Sedation (24%), Fatigue (15%), Vomiting (13%), Increased appetite (12%), Tremors (10%), Drooling (9%), EPS (7%), Weight gain (4%)</td>
<td>10% on study medication terminated treatment due to AEs: Sedation (N=7), Drooling (N=4), Tremor (N=4)</td>
<td>A=Irritability (5–17 yo)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Owen et al., 2009 Youth (6–17) Short-term (8-week)</td>
<td>8.5 mg (2–15)</td>
<td>YES</td>
<td>Hyperactivity, Inappropriate speech, Stereotypies, Repetitive behaviors</td>
<td>Weight gain (29%), Fatigue (21%), Somnolence (17%), Vomiting (15%), EPS (15%), Increased appetite (15%), Sedation (11%), Drooling (9%), Diarrhea (9%), Pyrexia (9%)</td>
<td>11% on study medication terminated treatment due to AEs: Fatigue, Vomiting, Weight gain, SIb, Agitation</td>
<td>B=Schizophrenia (≥13 yo), Bipolar Disorder (≥10 yo)</td>
</tr>
</tbody>
</table>

**Notes:**
- **Irritability**: Schizophrenia, Tourette's Disorder
- **Efficacy**: Adaptive behaviors: Socialization, Communication, Daily living skills
- **Dosing Guide**: Use the lower dose range for children and the higher dose range for adolescents
<table>
<thead>
<tr>
<th>Target Symptom(s)</th>
<th>Medication</th>
<th>Generic Name (Trade Name)</th>
<th>Controlled Trial in ASD</th>
<th>Participants</th>
<th>Study Duration</th>
<th>Dose (mg/day)</th>
<th>Treatment Response</th>
<th>Target symptom</th>
<th>Side Effects Associated with Study Medication</th>
<th>FDA Approval Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASD</td>
<td>Olanzapine (Zyprexa)</td>
<td>Misapropin (T Thương)</td>
<td>Hollander et al., 2006</td>
<td>Children (6–14)</td>
<td>Short-term (8-week)</td>
<td>10 ±2mg (7.5–12.5)</td>
<td>YES</td>
<td>(in global functioning)</td>
<td>Decreased appetite (18%) • Insomnia (15%) • Irritability (10%) • Emotional outbursts (10%)</td>
<td>B: ADHD (≥6 yo)</td>
</tr>
<tr>
<td>ASD</td>
<td>Methylphenidate (Ritalin)</td>
<td>Misapropin (T Thương)</td>
<td>RUPP, 2005</td>
<td>Children (5–14)</td>
<td>Short-term (4-week)</td>
<td>7.5–50mg [in 3 divided doses a day]</td>
<td>YES</td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>ADHD</td>
<td>Atomoxetine (Strattera)</td>
<td>Misapropin (T Thương)</td>
<td>Arnold, et al., 2006</td>
<td>Children (5–15)</td>
<td>Short-term (8-week)</td>
<td>1.4mg/kg/day (divided into 2 doses a day; total of 20–100mg)</td>
<td>YES</td>
<td></td>
<td>Tiredness (N=1) • Rage outburst with violence and hospitalization (N=1)</td>
<td>B: ADHD (≥6 yo)</td>
</tr>
<tr>
<td>ADHD</td>
<td>Atomoxetine (Strattera)</td>
<td>Misapropin (T Thương)</td>
<td>Harferkamp et al., 2013</td>
<td>Youth (6–17)</td>
<td>Short-term (8-week)</td>
<td>20–100mg (1.2 mg/kg/day) [in 2 divided doses a day]</td>
<td>YES</td>
<td></td>
<td>Fatigue (N=1)</td>
<td>B: ADHD (≥6 yo)</td>
</tr>
<tr>
<td>Target Symptom(s)</td>
<td>Medication</td>
<td>Generic Name (Trade Name)</td>
<td>Controlled Trial in ASD</td>
<td>Participants</td>
<td>Age Range (years)</td>
<td>Study Duration</td>
<td>Dose (mg/day)</td>
<td>Treatment Response</td>
<td>Side Effects Associated with Study Medication</td>
<td>FDA Approval Status</td>
</tr>
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</tr>
<tr>
<td>ADHD</td>
<td>Guanfacine (Tenex)</td>
<td>Handen et al., 2008</td>
<td>Children (5–8)</td>
<td>Short-term (4-week)</td>
<td>2.8mg (2–3) [in 3 divided doses a day]</td>
<td>YES</td>
<td>• Drowsiness (50%) • Enuresis (14%)</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>ADHD</td>
<td>Guanfacine (Intuniv)</td>
<td>Scahill et al., 2015</td>
<td>Children (5–14)</td>
<td>Short-term (8-week)</td>
<td>1–4mg/day</td>
<td>YES</td>
<td>• Drowsiness (88.7%) • Fatigue (53.3%) • Decreased appetite (43.3%) • Emotional/tearful (40%) • Dry mouth (40%) • Irritability (36.7%) • Anxiety (30%)</td>
<td>• Verbal and physical aggression requiring police contact and ER visit (N=1)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>ADHD symptoms</td>
<td>Clonidine (Catapres)</td>
<td>Jaselskis et al., 1992</td>
<td>Children (5–13)</td>
<td>Short-term (6-week)</td>
<td>0.15–0.20mg (4–10 micro-grn/ kg/day) [in 3 divided doses a day]</td>
<td>NO</td>
<td>• Irritability • Drowsiness (38%) • Hypotension (25%) • Decreased activity</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Repetitive behaviors</td>
<td>Divalproex sodium (Depakote)</td>
<td>Hollander et al., 2005</td>
<td>Youth (5–17) Included participants with ID</td>
<td>Short-term (8-week)</td>
<td>823 ± 326mg (500–1500)</td>
<td>YES</td>
<td>77% on study medication experienced side effects: • Irritability (33%) • Weight gain (22%) • Aggression (11%) • Anxiety (11%)</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Irritability/ Aggression</td>
<td></td>
<td>Hollander et al., 2010</td>
<td>Youth (4–15) Majority</td>
<td>Short-term (12-week)</td>
<td>≥500 (dosed to mean serum level of 90 mg/mL) [in 2 divided doses a day]</td>
<td>YES</td>
<td>• Agitation (13%) • Skin rash (13%) • Polyuria (13%) • Weight gain (6%)</td>
<td>• Irritability &amp; insomnia (N=1)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Autism</td>
<td>Lamotrigine (Lamictal)</td>
<td>Belsito et al., 2001</td>
<td>Children (3–11) NR</td>
<td>Short-term (18-week [12-week on study drug])</td>
<td>60–200mg (5 mg/kg/day)</td>
<td>NO</td>
<td>• Insomnia • Hyperactivity</td>
<td>• Insomnia (N=2) • Insomnia+ Aggression (N=1) • Stereotypy (N=1)</td>
<td>B Seizure Disorder (≥2 yo)</td>
<td></td>
</tr>
<tr>
<td>ASD</td>
<td>Levetiracetam (Keppra)</td>
<td>Wasserman et al., 2006</td>
<td>Children (5–10) Majority</td>
<td>Short-term (10-week)</td>
<td>863 ±279 mg(350–2500) 20–90 mg/kg/day</td>
<td>NO</td>
<td>• Agitation/Aggression (30%)</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Cholinergic Agents</td>
<td>Galantamine (Razadyne)</td>
<td>Niederhofer et al., 2002</td>
<td>Children (7.4 ± 3.2) Majority</td>
<td>Short-term (Duration NR)</td>
<td>NR</td>
<td>YES Parent-rated (and not Clinician-rated) improvement in: • Hyperactivity • Social withdrawal • Inappropriate speech</td>
<td>None</td>
<td>None</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Controlled Medication Studies in ASD

<table>
<thead>
<tr>
<th>Target Symptom(s)</th>
<th>Medication</th>
<th>Controlled Trial in ASD</th>
<th>Participants</th>
<th>Dose (mg/day)</th>
<th>Treatment Response</th>
<th>Side effects Associated with Study Medication</th>
<th>FDA Approval Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Symptoms</td>
<td>Donepezil (Aricept)</td>
<td>Chez et al., 2003</td>
<td>Children (2–10)</td>
<td>1.25–2.5mg</td>
<td>NO (Refer to comments)</td>
<td>Irritability (22%)</td>
<td>A=Approved in autism, B=Approved in youth</td>
</tr>
<tr>
<td></td>
<td>Mecamylamine (Inversine)</td>
<td>Arnold et al., 2012</td>
<td>Children (4–12)</td>
<td>0.5–5mg</td>
<td>NO</td>
<td>Constipation 50%</td>
<td>None</td>
</tr>
<tr>
<td>Irritability + Hyperactivity</td>
<td>Amantadine (Symmetrel)</td>
<td>King et al., 2001</td>
<td>Youth (5–15)</td>
<td>168mg (90–200) [5 mg/kg/dy] (in 2 divided doses a day)</td>
<td>NO</td>
<td>74% on study medication experienced AEs: Insomnia (21%), Somnolence (11%)</td>
<td>None</td>
</tr>
<tr>
<td>Irritability</td>
<td>N-acetylcysteine (Mucomyst, Acetadote)</td>
<td>Hardan et al., 2012</td>
<td>Children (3–10)</td>
<td>900–2700mg (900 mg once, twice, or thrice a day for 4-week each)</td>
<td>YES</td>
<td>Nausea/vomiting (43%), Constipation (21%), Diarrhea (21%)</td>
<td>B Flu (≥1 yo)</td>
</tr>
<tr>
<td>Core Symptoms</td>
<td>Bumetanide (Bumex)</td>
<td>Lemonnier et al., 2012</td>
<td>Children (3–11)</td>
<td>1mg</td>
<td>YES</td>
<td>Hypokalemia (22%), Enuresis (N=1), Hypokalemia (N=1)</td>
<td></td>
</tr>
<tr>
<td>Core Symptoms</td>
<td>L-Carnitine (Carnitor)</td>
<td>Geier et al., 2011</td>
<td>Children (3–10)</td>
<td>50 mg/kg/day</td>
<td>YES</td>
<td>Irritability, Stomach discomfort</td>
<td>1 participant discontinued study medication due to AE</td>
</tr>
<tr>
<td>Insomnia</td>
<td>Melatonin</td>
<td>Cortes et al., 2012</td>
<td>Children (4–10)</td>
<td>3mg (controlled-release formulation)</td>
<td>YES</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

* Intellectual Disability=IQ<70;**

** Behaviors under irritability include aggression, deliberate self-injury, and temper tantrums; NF=Not reported; AEs=Adverse effects; OCD=Obsessive compulsive disorder; EPS=Extra-pyramidal symptoms; SIB=Self-injurious behaviors; URI=Upper respiratory tract infection; LDL=Low-density lipoprotein; HDL=High-density lipoprotein; TG=Triglycerides; MPH=Methylphenidate.
<table>
<thead>
<tr>
<th>Date</th>
<th>Medication</th>
<th>Dose</th>
<th>Side Effects</th>
<th>Reason for Keeping/Stopping</th>
</tr>
</thead>
</table>

Use this form to track your child's medication history. Bring this form to appointments with your provider and update changes in medications, doses, side effects, and results.
13. Huntington TL. Prevent Pa. using

22 Autism Spectrum Disorder: Parents’ Medication Guide

References


Challenging Behaviors Tool Kit
Autism Speaks does not provide medical or legal advice or services. Rather, Autism Speaks provides general information about autism as a service to the community. The information provided in this toolkit is not a recommendation, referral or endorsement of any resource, therapeutic method, or service provider and does not replace the advice of medical, legal or educational professionals. Autism Speaks has not validated and is not responsible for any information or services provided by third parties. You are urged to use independent judgment and request references when considering any resource associated with the provision of services related to autism.

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Aggressive and Challenging Behaviors Tool Kit

Johnny runs away and requires constant supervision. Susie screams and covers her ears whenever an airplane is overhead—and she always hears them before anyone else. She screams other times too and it is hard to get her to stop. Tommy refuses to wear shoes and throws them at anyone who tries to get him to put them on. Maria doesn't like riding the bus, and bites her mom each day as it rolls up to the bus stop. Jose will only eat three foods, and they can never touch each other on his plate or everybody is sorry. Sally hits herself in the head whenever someone tells her ‘no.’ Sometimes the difficulties of autism can lead to behaviors that are quite challenging for us to understand and address. Most individuals with autism display challenging behaviors of some sort at some point in their lives. These behaviors can often be the result of the underlying conditions associated with autism.

For the purposes of this tool kit, we classify challenging behaviors as behaviors that:
- are harmful (to the individual or others)
- are destructive
- prevent access to learning and full participation in all aspects of community life
- are unusual (to the individual or others)

Purpose and Scope of this Tool Kit

Challenging behaviors can occur throughout the lifespan of an individual with autism. These behaviors can sometimes cause harm or damage, family and staff stress, isolation, and caregiver burnout. It is important to recognize that these behaviors are not “bad,” but are often the result of underlying conditions associated with autism. Challenging behaviors represent some of the most concerning and stressful issues of autism. These behaviors can often cause harm or damage, family and staff stress, isolation, and caregiver burnout. It is important to recognize that these behaviors are not “bad,” but are often the result of underlying conditions associated with autism.
Sometimes as children age and become stronger, challenging behaviors can reach crisis levels. Many families who have previously managed the traits presented by autism might experience crisis situations when their child hits older childhood or the teenage years. This may be because the challenges have grown as the child becomes bigger and stronger, or because of new factors that accompany growing up or puberty.

To address more significant concerns that might emerge in the child or others, there is a section to help with Managing a Crisis.

“When James reached age 18, he was 6’2” and 210 pounds, and strong. He was learning that aggression was an effective way to avoid tasks that he didn’t like because it worked—I was afraid of him. Every morning when I asked James to make his bed, he would usually begin doing it correctly but would often make mistakes. When I told him that he had made a mistake, he would start biting himself and hitting me, so I would back away and leave the room. But this allowed James to escape the task of making his bed and taught him (and me) that his aggression worked! With a little help from a behavioral consultant, I decided that whenever James began to get upset while making his bed, I would prompt him to say, “Help me please.” It was explained to me that this behavior served the same purpose as his aggression and self-injury. When James asked for help, I would give it some assurance, which made us both feel less frustrated.”

— AG, mother

The guiding principle used in developing this kit is that each individual with autism and his family should feel safe and supported, and live a healthy life filled with purpose, dignity, choices, and happiness. With this in mind, positive approaches and suggestions are highlighted throughout the kit. These general framework and intervention principles used in developing this kit are based on evidence-based practice and research. We have included basic background information, with links to further information and resources on a variety of topics.

In this tool kit, the term autism will be used to include all Autism Spectrum Disorders that result in the social, communication and behavioral differences characteristic of this population. While we recognize that the autism spectrum encompasses both males and females, for the sake of simplicity, we have used ‘he’ throughout to represent an individual of either gender.
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What is Autism Associated with Aggressive and Challenging Behaviors?
As a companion to the information in this kit, we have two video series of frequently asked questions regarding challenging behaviors. One is from a legal perspective and the other from a clinical perspective. You can find them on the homepage of the Challenging Behaviors Tool Kit. The questions addressed in these videos are listed below.

**Legal FAQ's**

**General Crisis Information:**
- Can you tell me what a crisis is?
- What's my first objective in a crisis situation?
- If an adult is in a residential placement, what is the responsibility of the facility or home in a crisis situation?
- Are there any other options?
- What happens if my child is being repeatedly kicked out of school and sent to hospital settings?
- If my child is in the hospital, what happens to their schooling?
- Is the hospital required to provide behavioral supports?

**Hospitals & Residential Placement:**
- What are the responsibilities of a hospital and your rights regarding medical interventions?

**Adults & Guardianship:**
- Is there anybody responsible for helping adults who are having crisis behaviors?
- Is there emergency or temporary guardianship for a situation like this?
- What happens in a crisis situation if the family has no guardianship and the individual is over 18?
- What are the responsibilities of a hospital and your rights regarding medical interventions?

**Schools & Schools:**
- If my school isn't helping or can't help with the situation, what should I do?
- What is a school's responsibility if the crisis happens at home?
- What is a manifestation hearing?
- What should I do if my child gets kicked out of school?
- Can my child get kicked out of school for this kind of behavior?
- What is the school's immediate responsibility if a crisis happens in school?

**Other Options:**
- Are there any other options?

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Calling 911:

■ If I call 911 for an emergency, what should I tell the dispatcher?
■ Are there specific terms or phrases that should be used to get help in a crisis situation?
■ When the first responders arrive, what information should I give them?

Other Advice:

■ Where can families turn if they feel unsafe in a crisis situation?
■ What other legal advice do you have for families in crisis?

Understanding Challenging Behaviors:

■ What are challenging behaviors?
■ What's the most important thing to know about challenging behaviors?
■ What's important to know about aggressive or self-injurious behaviors?
■ What are challenging behaviors?

Addressing Challenging Behaviors:

■ Why is it important to address challenging behaviors?
■ What should I know before addressing challenging behaviors?
■ How important is consistency in addressing challenging behaviors?
■ Where should I consider residential placement?
■ Where do siblings fit in with all of this?
■ What if I’m having trouble carrying out a behavior plan?

Dealing With A Crisis At Home:

■ What should families do in a crisis situation?
■ Where can families turn if they feel unsafe in a crisis situation?
■ Where can families turn if they feel unsafe in a crisis situation?
With gratitude, we thank the members of our Advisory Committees for generously donating their time.

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We thank the members of our Advisory Committees for generously donating their time.
Why is Autism Associated With Aggressive and Challenging Behaviors?

Autism itself does not cause challenging behaviors. It is likely, however, that some of the underlying biological processes that result in autism might also result in behaviors that are outside of a person’s control—similar to how the tremors associated with Parkinson’s Disease are brought on by impulses that the person cannot direct. In addition, some behavioral responses are simply reflexes—no more of a choice for your child than when your leg jerks upward when the doctor uses his hammer on your kneecap.

Challenging behaviors are more likely to appear when a person is feeling unhappy or uncomfortable. "All of a sudden when Mark was about 8 years old, he needed order. The shape of his curling was an automatic response in the moment, not a choice he is making," says SP, father of a child with autism.

In addition, the core features of autism are areas in which difficulties can lead to feelings of frustration, confusion, anxiety or lack of control, resulting in behavioral responses. Since behavior is often a form of communication, many individuals with autism (as well as those without autism) voice their wants, needs or concerns through behaviors, rather than words. This does not mean that they are always knowingly communicating. For example, "If a doctor can sense that a patient is not doing well, he or she might order blood tests to help determine if there is an underlying medical condition."
Many behaviors are also responses to previous experiences. A baby who gets a smile when he coos usually learns to coo more often. The same is true for challenging behaviors. If a child has learned that screaming gets him out of a difficult task, he might scream in the future to escape. How we respond to his actions can have a significant effect on what he does the next time he is in a similar situation.

Because of the learning differences that autism can bring, people with autism might need specialized approaches to learning appropriate behavior. For example, the scolding look that stops your typical two-year-old in his tracks may mean nothing to a 30-year-old with autism who has not learned to recognize emotions and facial expressions. Without some of the abilities and skills that most of us have developed as children and adults, people with autism often do not respond to situations the way others do. They may use the tools they know how to use, perhaps in a different way than others would.

A recent study of aggression in autism showed some interesting trends in terms of risk factors, which may give some insight into challenging behaviors overall.

Research on Aggression in Autism

- There is a much higher rate of aggression towards caregivers in autism than in the general population and in others with intellectual disabilities.
- Unlike the risk factors in a typical population, aggression was equally common in girls and boys with autism. Several other usual risk factors (lower IQ, lower parental education, less language ability) were not associated with greater risk in autism.
- Those children with autism at highest risk of aggression exhibited the following characteristics:
  1. More severe autistic social impairment
  2. More severe autistic social impairment, especially extreme resistance to change
  3. More repetitive behavior, especially aggressive

Other research also showed that just like in the general population, growth may help behaviors improve.

These results show that core symptoms of autism are

[Image 306x156 to 567x385]
What is helpful to know about behavior?

Before considering challenging behavior in isolation, it is helpful to think about human behavior in general. Some behavior is biologically driven (we eat when we are hungry) or reflexive (we cover our ears when a noise is too loud). But for the most part, behavior occurs because it serves a function and/or produces an outcome. For example, eating serves the function of satisfying hunger, and covering our ears softens the impact of the loud noise. Behavior also serves as a form of communication. Seeing someone cover his ears, even when we did not find a noise to be offensive, can communicate that he is particularly sensitive to sound.

It is critical to remember that any individual is doing the best he can do in each situation, given his skills, education, physical and emotional state, and past experiences. We classify certain behaviors as challenging because we or society might find them to be difficult to accept. It will be important for you to become a careful observer of your own behaviors and accept those behaviors. For example, determining why a child needs to kick, and then developing his skills and accepting those behaviors is essential.

Sam’s teacher moved to another city, so he entered his second year of high school with a familiar but less skilled instructor. Soon he was headed to the nurse’s office and spending first period on her bed. Clearly the new teacher had anxiety, and the school staff believed that this was being reflected in Sam’s behavior and increasing his anxiety as well. Or perhaps it was task avoidance, as there were a lot of language demands in that first period social skills class. I then one morning, he was unusually disengaged and indifferent, his eyes were glazed, yet nothing had changed. His behavior was almost as if he were at home. It was clear Sam wasn’t feeling well.

When thinking about your loved one with challenging behaviors, it is also important to consider this.

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Then a pre-determined or willful behavior.
Whenever behavior occurs, it is important to consider its purpose, or what is most often called its function. Although some behavior is biologically driven, much behavior is learned over time and through experiences, and shaped by what happens before and after the behavior takes place. Other behaviors may have begun as biologically driven (such as scratching an itch) but may turn into something that serves a different function (perhaps scratching to gain a teacher’s attention).

"Special educators [and parents] need to look at what a child can do instead of what he/she cannot do. There needs to be more emphasis on building up and expanding the skills a child is good at. Too often people get locked into a label such as dyslexia, ADHD, or autism, and they cannot see beyond the label. Kids that get a label often have uneven skills. They may be talented in one area and have a real deficiency in another. It’s important to look at a child on a case-by-case basis and see what he/she is good at. Other behaviors may have begun as a productive behavior, such as grabbing a cookie, or a different function. An example of a productive behavior might be asking for something to eat, then receiving a cookie. The function of making the request is to get the cookie. For a child with limited language skills, the strategies involved in getting a cookie might look very different. But if the end result is the same, whatever the individual needed to do to get a cookie, that is the method by which he has learned to get a cookie. Over time, an individual will learn how to get a cookie in efficient and effective ways. Many of these efficient behaviors are learned and individualized to each individual and are often a product of a different function or consideration of the individual's needs."

- Temple Grandin, Ph.D.

The Function of Challenging Behaviors

Challenging behaviors, such as aggression or disruption, can occur in many forms. Some strategies that may help include:

- Understanding the big three: Does it happen in certain places? Does it happen to certain people? Does it happen in certain situations where he is hungry or tired?
- What is the child gaining? Is he gaining something he needs?
- What is the child lacking? Is he trying to escape something?
- What is the child communicating? Is he making him reach a goal?

Questions you might ask about why a person is exhibiting a certain way include:

- What is gaining or losing?
- What is the child's communication style?
- What is the child's method of communication?
- What is the child's goal?
- What is the child's strategy?
What happens before the behavior? Is there something that makes it more likely to occur?

What happens after the behavior occurs? What is helping this behavior persist? What maintains it or makes it work as a tool for this individual?

What do I typically do to get my child to stop engaging in the behavior? Am I (or is someone else) giving him more attention than, or doing something that might be making the behavior work to get something he wants?

If you can develop an idea of when or why a behavior is happening, you may realize there are simple solutions that help to improve a situation and make an undesired behavior less likely to occur.
For example, if a child is hitting his mom in order to get out of making his bed, putting the child in ‘time out’ would actually give the child what he wanted (avoiding the task), and therefore support (reinforce) the behavior. In this case, he would be inclined to hit again to escape. Instead, if it is determined that the child hits because the task is too difficult, making the task easier to build success might allow him to stay engaged, and eliminate the need to hit. You may want to start by helping him make the bed, but be sure that he has to finish the task in full. Only then may you lead to punishment. If the behaviors begin to decrease, gradually decrease the type and quantity of the rewards. Focusing on a single task might actually sustain the child’s behavior. It must be implemented consistently at all times by the majority of people who interact with the individual.

**Two Vital Things to Remember**

- **Consistency is Vital** - While function-based behavior intervention can be very effective, for it to be most successful, it must be implemented consistently at all times by the majority of people who interact with the individual.

- **Continuation is Vital** - Instead, function-based behavior intervention should continue even if the challenging behaviors begin to decrease. More importantly, the behavior intervention should continue even if the challenging behaviors begin to decrease.

By applying the principles of behavior, you will lead the individual toward more appropriate ways to obtain what he wants.

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**Supporting Behavior Improvement**

Building appropriate self-awareness and self-determination skills is essential. The individual must be standing up for his own rights. Regret is an important factor in recognizing what we might consider negative behavior might have positive elements—the individual might be standing up for his wants or desires.

Positive strategies for supporting behavior improvement involve teaching self-determination and self-advocacy. Many of the successful supports for increasing appropriate behavior involve creating more predictability and safety, while also building self-regulation and self-determination skills. Meet your child where he is now, celebrate and encourage self-regulation and self-determination skills. Visit the Positive Strategies for Supporting Behavior Improvement for more information.
Why is it Important to Do Something about Challenging Behaviors?

Easily seeing what the problem is and adjusting the situation may be simple enough to change challenging behaviors. But sometimes this is unsuccessful, in which case continued challenging behaviors may be a sign that an individual needs help. This may be a medical evaluation or a particular treatment if something is affecting his health. Or it may reflect some changes in the supports, skills or tools that will allow him to feel comfortable, safe, heard and validated.

To many important things in life behavior drift can become difficult to change and can accumulate to limit the child’s and his family’s access to and function of many things available. Everyone is exhausted and no one is functioning well. Over time, these subtle adjustments (sometimes called “behavioral drift”) may accept that a child is an early learner or that 6 AM becomes 5 AM or that 6 AM becomes 5 AM or that 7 AM becomes 6 AM. They may accept that family or friends are no longer with them in ways that they can adapt into patterns that become a “new normal.” This may mean they no longer take their child shopping because of aggression in the community, they may no longer mean they no longer take their child shopping because of aggression in the community, they may no longer drive to their child’s behavior out of habit, they can adapt into pattern that become a “new normal.”

Your ability to learn the tools to address and reshape challenging behaviors as early as possible is important for the day to day quality of life for your loved one as well as your family. Many parents make subtle adjustments for the day to day quality of life for your loved one as well as your family. Many parents make subtle adjustments to our child’s behavior without proper information, these behaviors tend to continue and may get worse, creating an inconsistent, chaotic cycle for your own child and when the family, friends, and teachers go on vacation or bring back another child, it may not be possible to “pick up where we left off.”

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Before Lindsay had speech, we could only guess at what her needs were, so much pain. It was truly awful to feel so helpless, stuck and overwhelmed by her behaviors and her speech. Before Lindsay had speech, we could only guess at what her needs were, so much pain. It was truly awful to feel so helpless, stuck and overwhelmed by her behaviors and her speech. Before Lindsay had speech, we could only guess at what her needs were, so much pain. It was truly awful to feel so helpless, stuck and overwhelmed by her behaviors and her speech. Before Lindsay had speech, we could only guess at what her needs were, so much pain. It was truly awful to feel so helpless, stuck and overwhelmed by her behaviors and her speech.
Challenging behaviors can have a significant impact on the individual in many ways. They can:

- Interrupt academic learning and as a result limit long-term growth and development.
- Limit experiences and keep a person out of many opportunities for growth over his lifespan, including play dates, mainstream classrooms, recreational options, and eventually his work options, living conditions, and ability to be integrated into the community.
- Cause physical decline, pain, injury, especially when aggression and self-injury are involved.
- Compromise an individual's psychological state, resulting in depression, stress, anxiety, and reduced self-confidence and self-respect.
- Impair social relationships, as well as long-term interactions with siblings, parents and other family members.
- Deplete support from other caregivers, extend family or friends, due to added complexities.
- Reduce independence and choice.
- Affect finances as a result of employment, medical and supervision expenses.

It is important to address challenging behaviors for many reasons, and the sooner the better. A 25 pound toddler with reactive behavior and a fist is a challenge, but that same behavior in a teen who weighs 175 pounds is a threat. Problem behaviors that might overwhelm the family's ability to cope include:

- Physical danger
- Physical burnout and increased turnover
- Added stress and worry
- Social isolation as a result of the embarrassment or stigma that accompanies the maladaptive behavior
- Loss of time and attention for other children, responsibilities, or interests
- Anxiety and/or depression for parents and siblings
- Financial concerns that result from the costs of constant care and supervision, damage to property, medical bills, or the necessity of a parent to stop working

Challenging behaviors can have a significant impact on the family and caregivers in many ways. Effects include:

- Added stress and worry
- Reduced independence and choice
- Affect finances as a result of employment, medical and supervision expenses
- Impair social relationships as well as long-term interactions with siblings, parents and other family members
- Compromise in individual psychological state, resulting in depression, stress, anxiety, and reduced self-confidence and self-respect.
- Cause physical decline, pain, injury, especially when aggression and self-injury are involved.
- Deplete support from other caregivers, extend family or friends, due to added complexities.
- Reduced independence and choice.

It is important to address challenging behaviors for many reasons, and the sooner the better.
What are some Challenging Behaviors Commonly Displayed by Individuals with Autism?

Sometimes knowing more about a behavior itself, or learning the language to describe the behaviors you see to a professional, can help others to recognize the seriousness of the problem or find the right team members or approaches to understanding your concerns. The intensity, frequency and severity of behaviors will vary considerably across individuals and settings, and may change over time. For many families, the list below may seem overwhelming. However, any of these behaviors can result in difficulty with a person’s attention or engagement of motor planning issues.

**Disruption** occurs when an individual performs actions or behaviors that interfere with the flow of surroundings. Examples include interrupting a classroom lesson, the operation of a work environment, or a parent’s ability to prepare a meal. Behaviors might include banging, kicking or throwing objects, knocking things over, tearing things, yelling, crying, or swearing.

**Elopement** refers to running away and not returning to the place where a person started. In autism, elopement is often used to describe behaviors in which a person leaves a safe area, a caretaker, or supervised situation, either by bolting, wandering or sneaking away.

The perfect solution is to keep him safe and that you can find the place where he is. If you think about it, you can’t control him and the key is to do what you can. Sometimes he needs time and sometimes he needs to be left alone. Once you open that door, he can be gone.

**Non-compliance** is used to describe when an individual does not or refuses to follow the directions given by a person with whom a child is in contact. Examples might include not following a direction, or an individual making demands or asking for attention or escape.

**Obsessions, compulsions, and rituals** are often strong, irresistible urges that can result in a person’s inability to cooperate, to manage change or to flexibly adjust the compensation involved in operations and activities. The compulsion involved in obsessions and rituals can result in difficulty with a person’s attention or engagement of motor planning issues.

**Incontinence** is the (usually) involuntary passing of feces or urine, generally not into a toilet or diaper. Sometimes there is an underlying physical concern that might need treatment or incomplete toilet training that may need additional teaching. For some individuals, it may be a sign that there is difficulty recognizing body signals. Sometimes, an individual learns to pass these signs before his or her bladder or bowel is ready. Sometimes an individual learns to use incontinence as a means of gaining attention or as a way to control or escape situations.

**Defecation** refers to the movement of stool and not returning to the place where a person started. In autism, defecation occurs when an individual exhibits inappropriate behaviors that interrupt the function and integrity of the environment.

By Individually, with Autisms.
An obsession is when a person's thoughts or feelings are dominated by a particular idea, image or desire, such as a person who only wants to talk about elevators.

A compulsion is the drive to do something in particular or in a particular way, such as the need to straighten all the forks at the dinner table.

A ritual is used to describe a repetitive behavior that a person appears to use in a systematic way in order to promote calm or prevent anxiety, such as arranging all the pillows in a certain way before being able to go to sleep.

Physical aggression is an act of force that may cause harm to another person, and might include hitting, biting, grabbing, hairpulling, slapping, kicking, pinching, scratching, pulling, pushing, headbutting, or throwing things.

Property destruction includes behavior in which belongings or property are harmed, ruined, or destroyed and might include breaking, throwing, scratching, tearing, defacing, etc. belongings (his or those belonging to others).

Self-injury is the attempt or act of causing harm to a person's own body severe enough to cause damage.

Verbal aggression generally involves the use of threats, bullying, or any other words or actions that may be considered as abuse.

Self-injury can take many forms in autism, and might be described as a lack of sexual inhibition or emotional control.

Sexual inappropriateness can take many forms in autism and might involve inappropriate sexual behaviors that do not involve injury or causing harm to people or property.

Sexual inappropriateness includes physical actions that do not involve injury or causing harm to someone else.

Self-injury can be seen as a lack of control or as a lack of understanding of one's own body.
Less Common Challenging Behaviors

Fecal digging occurs when an individual puts his fingers into his rectum (backside). Fecal smearing and handling of feces (poop) occurs when feces are spread on property or the individual himself. Each of these might be rooted in medical causes such as skin or digestive tract concerns, or may be learned behaviors that serve a purpose such as access to attention or escape from unpleasant situations.

Food refusal occurs when a person refuses to eat anything at all.

Pica is an eating disorder that involves eating things that are not food. Some individuals with autism and other developmental disabilities eat items such as dirt, clay, chalk or paint chips. Pica can also occur when a person craves certain nutrients or minerals that are lacking in the diet/body, as sometimes occurs in women.

Rumination describes the practice of (voluntarily or involuntarily) spitting up partially digested food and re-chewing it. Purposal or self-induced vomiting is throwing up on purpose. Contributing factors such as reflux, hyper active stomach, or eating disorders should be considered.

Resources:
- Targeting the Big Three: Challenging Behaviors, Mealtime Behaviors, and Toiletting by Helen You, PhD, New York State Institute for Basic Research
- Targeting the Big Three: Challenging Behaviors, Mealtime Behaviors, and Toiletting by Helen You, PhD, New York State Institute for Basic Research

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Who Can Help?

What is this Idea of a Team?

Individuals with autism are often quite complex, so it is helpful to take a broad approach when evaluating concerns, and deciding how to provide appropriate support. In order to meet their various needs, many individuals with autism, especially those with challenging behaviors, need a team to develop specialized and individualized care.

Team Members to Consider

Depending on the placement, circumstances, services, supports and concerns surrounding your loved one with challenging behaviors, the team might include the individuals and professionals from the disciplines outlined below. The actual mix of professionals and titles will vary across situations, but for most people it will be important to have someone in each of the roles described, either as an ongoing advisor, or as a consultant as needed.

- **Individual with Autism:**
  - To maintain a person-centered approach and treat your loved one with dignity and respect, it is essential to have someone who does not respond verbally can deliver a great deal of information about their preferences, strengths, interests, goals, and needs.
  - Wherever possible, involve him in the decision-making process to help build social skills, self-advocacy skills, and independence. Remember to be sensitive to talking about him in his presence, as it is possible that he understand more than he can show.
  - Even if it seems that your child is not able to understand what you are saying, talking to him directly might deliver more information and generate more understanding than you might expect. In addition, a person who does not respond verbally can deliver a great deal of information about his preferences, strengths, interests, goals, and needs.

Below is an excerpt from A Full Life with Autism, from the perspective of Jeremy, a young man with autism:

“I have often times been the victim of ignorance. I think you have to be brave to get over the horrible times people hurt you by talking like you don't understand the comments they are making about you within earshot. I don’t think people realize the kind of effect they have on nonverbal people. You know that intentional abuse is unforgiveable, but in some cases ignorance is just as painful. I remember when I was in 7th grade the occupational therapist told the teacher I couldn’t talk. I was so upset because even though I couldn’t talk learn and she did not understand my nonverbal behavior. You know how difficult it is to understand people who don’t talk, to read the signs people put you through. I tried to get over the horrible times people put you through, but you learn to be very, very careful who you talk to.”

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You are the key informant and advocate and an absolutely essential member of the treatment team. Outcomes are better with family involvement. No one knows your loved one, his history or the dynamics of your beliefs and your household the way you do. You might need to tell a story or give an example to fully describe the situations you find difficult or the needs you might see in your child. Be prepared to ask questions, raise your concerns and preferences, and ask for help. Effective communication across the team is essential, and in many cases you may be the one facilitating the sharing of information.

If you do not have one, try to build a medical home—a relationship with a doctor who knows your child and whom you know and trust. Invite your primary doctor in on evaluations, in school, and through the possibilities together. Your doctor might refer you to specialists in areas of concern, and may be able to help when considering medical interventions for behavioral concerns. If your provider does not have a special needs parent advocate, the parent can help you to research, track and organize the body of information that comes with the challenges of your loved one. Be prepared to ask questions, raise your concerns, and consider the level of your concerns. If you do not have a case manager, sometimes a friend or family member can help you to understand and organize the body of information that comes with the challenges of your loved one. It is important for everything from IEPs to summer camps...to organize this information and make sure your team is up to date with the latest information. Having a medical home is essential for the development of a family medical home, and it is helpful to have the tools you need to be a great parent. Your doctor should be providing you with the tools you need to be a great parent, and should be helping to gather resources, form teams and make decisions. The effectiveness, skills and time availability of a case manager will vary considerably, but to many parents and in some states, a case manager (see below) can provide a wealth of information and support for your family needs. You do not need to do this alone, but you may need to seek out advice and support for the level of support presented. You do not need to do this alone, and you may need to seek out advice and support for the level of support presented.

If you are asked to do something you cannot do because it is too expensive, too difficult, or you don’t understand the objective, speak up and ask for other ideas.

"When my daughter was moving from 1st grade to a new school, I created a 3-ring binder notebook with plastic inserts and dividers. In each plastic insert, I placed sheets of her school work both good and bad to show her growth. I included artwork, certificates and added a picture to the front. Almost just as important, I included information from her Medical Home and all of the other care providers on her team. This gave me a clear picture of how her grades were doing and how her behavior was changing. This notebook gave me the tools I needed to be the best Team Leader for my daughter. It helped me to be more effective in my role as a parent. It helped me to be a better parent!"

KD, parent
Among others, referrals to specialists might include:

- Hearing assessments (audiologist)
- Vision evaluation (ophthalmologist or optometrist)
- Stomach or digestive tract concerns (gastroenterologist)
- Diet or nutrition issues (nutritionist)
- Allergies (allergist)
- Immune concerns (immunologist)
- Heart, lung, or other organ issues (cardiologist, pulmonologist, or internist)
- Vision evaluation (ophthalmologist or optometrist)
- Hearing assessments (audiologist)
- Among others, referrals to specialists might include:

Just because an individual has autism, it does not mean that he is exempt from any of the other health concerns that affect any of us.

Is your loved one an adult or approaching adulthood?

It is important to note that while pediatricians are becoming increasingly aware of some of the issues related to autism, individuals on the spectrum are still relatively rare and novel in the world of adult medicine. Sometimes doctors try to describe symptoms and signs that aren’t related to autism, but that may be a sign of some other issue related to autism. Individuals on the spectrum are aware of some of the issues related to autism, but what they know about autism is not the same as the medical concerns associated with autism are being researched and treated according to collaboratively developed protocols within a collaborative community of medical professionals who specialize in autism treatment.

In some states, you might have access to an Autism Treatment Network site, where the medical concerns associated with autism are being researched and treated according to collaboratively developed protocols within a collaborative community of medical professionals who specialize in autism treatment.

Gently does it, caring for adults with autism, from the American College of Physicians.
Behavioral Health Provider or Behavior Analyst:
A team member who is trained in behaviorally based evaluations and interventions can help in understanding your child’s challenging behaviors and developing supports and strategies. This might be a school psychologist, general psychologist, Board Certified Behavior Analyst (BCBA) or other behaviorally trained provider. These providers will use the elements of Applied Behavior Analysis (ABA) in supporting your loved one. ABA techniques involve controlling factors in the environment and monitoring interactions prior to a behavior (antecedents) and responses after a behavior (consequences). These techniques, including using positive reinforcement, are powerful in shaping behavior in individuals with autism. For more information, see the ATN Applied Behavior Analysis (ABA) Module on Understanding Your Child’s ABA Intervention.

Educator/Job Coach/Habilitator:
If your child is under the age of 21, it is likely that he is in a school-based program with a teacher. Once he reaches adulthood, instruction is more likely to come through a habilitator or staff member at a day program, or a job coach. In both instances, finding a lead educator with autism experience and background in behavioral interventions will likely be helpful. Schools will require credentials on a state-by-state basis, but there is very little licensing or required training for adult service providers in most states.

Mental Health Provider:
Consideration of emotional and mental health concerns, as well as training and supports for the individual and the family, can come from a psychologist, school psychologist, psychiatrist, social worker, or community mental health worker.

Speech Pathologist or Speech Language Pathologist (SLP):
A trained speech specialist can evaluate an individual’s ability to understand language and communicate effectively. These specialists can develop and implement speech and language therapy programs to improve language skills, social skills, and communication abilities.

Occupational Therapist (OT):
A speech language pathologist can help to evaluate concerns with the mouth, facial muscles, and oral structures, which are important for speech and language development. They can also help with swallowing and feeding issues, as well as develop strategies to improve fine and gross motor skills. Occupational therapists can work closely with the speech pathologist to develop comprehensive treatment plans for individuals with autism.

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Physical therapists (PT), who generally work on large motor tasks and functions, may also be trained in related techniques. Both OTs and PTs can be instrumental in developing effective exercise programming. Each of these team members might bring a different view of the same person to the table, providing perspective and expertise in understanding and creating systems of support. It is up to the parent, hopefully with the support of another key team member such as the case manager or doctor, to weigh and prioritize the input from these team members. A combined approach from the team should help to address physical, mental and learning concerns, and create a positive environment for your child to grow and adapt.

Things to Look For in Your Child’s Team

(And Questions You Might Ask)

Love one another, and create a positive environment for addressing challenging behaviors and helping your child. These team members—PTs and OTs—can be instrumental in developing effective exercise programs.

Physical therapists (PTs), who generally work on large motor tasks and functions, may also be trained in re-

Collaborative: The challenging behaviors that might develop from a variety of factors will require many points of view. There may be a need for multiple providers to see multiple facets, and the team will need to work together on the person’s behalf. Collaboration also requires good communication between the members of the team. Some parents carry a notebook, an informative sheet and even a master schedule to share with other team members.

Professionals who think of your child as a person first—not the disability or the behaviors—will be the most helpful in discovering his strengths and his challenges. A person-centered approach will allow your team to find the tools and strategies that will be most helpful to him as an individual and to you as a family. A family-centered approach is also important, so it is essential to consider the value, priorities and special needs of your family.

Does he try to understand your loved one’s family dynamics, frustrations, strengths, confounding factors, etc.?

This concern is much about the questions the provider asks you as about how he answers your questions.

What are his strengths? What can you see of his preferences and fears?

The best interventions of helping my son fit. But a few months into the preschool year, after Eliza’s progress seemed to slow, I began to ask, “Are we really making progress?” From the beginning, I have assembled a group of five people who consider the very best interventions of helping my son fit. But a few months into the preschool year, after Eliza’s progress seemed to slow, I began to ask, “Are we really making progress?” From the beginning, I have assembled a group of five people who consider the very best interventions of helping my son.

What do you see about my child that you think is meaningful? Helpful? Different?

Does he try to understand your loved one’s family dynamics, frustrations, strengths, confounding factors, etc.?

What can you see of his preferences and fears?

What can you see of his preferences and fears?

What can you see of his preferences and fears?
team meetings at the school where we could coordinate what each person found helpful, Eli really started to make a lot of progress. Keeping a daily communication book in his backpack (and now an email chain) was terrific because it kept us all in the loop and it was a way to document everyone’s ideas. – SW, a mother

Development Center on Autism Spectrum Disorders

Autism Center’s Parent’s Guide to Evidence-Based Practice and Autism and the National Professional Development Center’s A Parent’s Guide to Evidence-Based Practice and Autism. For more on autism best practices, see the National Autism Center’s website. Team members who help you assess suggestions about your child may know that you might not get all the facts. You should ask about the facts and consider their relevance to your child’s situation. Consult other team members who have experience in autism. For many interventions, the research has not been done.

The team should treat the person and the presenting symptoms, not the autism.

What does the research say about the use of this intervention for—? What other information is available?

Your experience in working with individuals with autism? This age group?

What do you know about other interventions?

Do you have any suggestions for other team members with ____ expertise who might be helpful?

Do you think ____ might reflect something physical or emotional? Is there something else we should be considering?

What is your experience in working with individuals with autism? This age group? This type of challenging behavior? This intervention plan?

Commitment to evidence-based interventions: Team members should focus on medications, interventions, and programming that research has shown to be effective. However, if important to remember that research has not been done.

Experience with Autism:

Especially when it comes to challenging behaviors, you can learn about the provider’s experience by asking at his office, by connecting with school or agency staff, other parents, or local support groups. Your experience may influence a different approach to evaluation. You can learn about the provider’s possible concerns by asking questions that show you understand the nuances of child behavior and your child’s situation. A psychologist who understands that minimally verbal children have developed other ways of gathering information about their environment may have developed other ways of gathering information about the child’s situation. Consult other team members who have experience with autism. For example, a doctor who understands that sensory issues may cause a child to be more anxious in certain situations may have developed other ways of gathering information about the child’s situation.

What does the research say about the use of this intervention for ____? What other information is available?

What do you know about other interventions?

What do you know about other interventions?
Professional judgment: While research studies show the general effects of an intervention across a population, an evaluation of effectiveness should take place for interventions used with any specific person. Assessing effects requires set targets, goals, and protocols, as well as a plan for collecting and analyzing data. Data analysis is important so that you know what is working and when and if alternative treatments should be considered.

What is the target behavior of this intervention?

How will we know if it is working? What are we tracking?

What are the side effects?

What is our role in the intervention?

Responsiveness: Providers should give you as much information as you need to understand the intervention and your loved one.

What is my role in this plan or intervention?

How can we adjust _____ to take into consideration our family’s needs? My travel schedule? Our insurance plan?

This is too hard. Data reflects that it is not working. This medication is making him worse. What do we do now?

Licensing, board certification, or other credentials:

It might be helpful to request references and talk to others who have used a provider you are considering. A list of certification and credentials required for the team members above is listed below:

Medical Professional:

Behavior Analyst Certification Board

Clinical Social Worker: State license or certification (available online)

National Association of School Psychologists

Psychologist License: State Licensing Board (available online)

Community Health Providers:

Occupational Therapists/Physicians/Therapists:

American Board of Medical Specialties or American Osteopathic Association

License: State Medical Licensing Examination

American Board of Professional Psychology

American Speech-Language-Hearing Association

American Psychological Association

Behavioral Health Providers:

Behavior Analyst Certification Board

American Board of Professional Psychology

Occupational Therapists/Physicians/Therapists:

American Board of Medical Specialties or American Osteopathic Association

License: State Medical Licensing Examination

American Psychological Association

Note: This is an outline of the topics covered in this guide. For detailed information, please refer to the source documents listed above.
How and Where to Find a Team

For school-age children, many of these providers will be available through your school, please consult the Autism Speaks Resource Guide.

To access supports or resources specific to your state, please consult the Autism Speaks Resource Guide.

If you have found providers that have been helpful, please submit them to the database here: https://www.autismspeaks.org/resource-guide.

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Even if you have an experienced professional team assembled, paying for the additional services and supports can be yet another hurdle. Services provided by the school under the stipulations of IDEA are required to be free and appropriate. That means you do not need to pay, and if the school does not have the necessary skills or staff to meet your child’s needs, it is their responsibility to pay for the services required to do so. It may require significant advocacy to get them to do what the law requires. More information on your rights under IDEA can be found here.

Funding Sources

Family services may have programs, supports or suggestions of resources.

Certain state agencies can also provide funding for special education and other services. These agencies may include a Department of Education, a Department of Developmental Disabilities or Child and Family Services.oeide/requirements.html has additional information on funding sources. www.autismspeaks.org is a valuable resource for additional information.

Contact your Human Resources officer about benefits, or check with your insurance company. Contact the public health department to learn about community programs such as those for mental health or those targeted to children. Funding for medical needs is often covered through health insurance and/or Medicaid. Speech and occupational therapists, as well as medical specialists, are often covered under medical plans. Historically, some of these benefits were specifically denied for autism and developmental disabilities, but as autism has become more common and research and advocacy efforts have increased, coverage for these items is improving.

Some states have mental health parity laws, which indicate that mental health care has to be covered to the same degree as physical health issues. Some insurance plans also have stipulations for behavioral health supports and interventions, and Medicaid programs provide wrap-around services for behavioral interventions. It may take some significant investigation through your Human Resources department, your insurance company or the Medicaid office to find out the details of the mental or behavioral health coverage available. You may find assistance through your primary care provider, or contact a case manager.

Autism insurance legislation is in the process of being enacted state by state, with various terms regarding implementation and coverage. More than 30 states have passed autism insurance laws; they are listed on the National Conference of State Legislatures website. It is advisable to investigate and understand your coverage before beginning services. To find out the status of specific laws for insurance coverage for autism services in your state, visit the Autism Speaks Autism Votes website and select your state.

Some state agencies can also provide funding for respite, which is helpful in giving you a chance to catch your breath. These agencies may include a Department of Developmental Disabilities or Child and Family Services.oeide/requirements.html has additional information on funding sources.
Sources/Resources:

- Behavior Analyst Certification Board, Inc. (BACB)
  http://www.bacb.com/
- ‘Gently does it,’ caring for adults with autism
- National Autism Center’s A Parent’s Guide to Evidence-Based Practices
- National Conference of State Legislatures (autism insurance information)
- National Professional Development Center on Autism Spectrum Disorders
  http://autismpdc.fpg.unc.edu/
- Special Needs Parent Advocate
  http://www.specialneedsadvocate.com
  http://www.bls.gov/oco/
- Wrightslaw (special education and disabilities legal information)
  www.Wrightslaw.com
- The National Conference of State Legislatures (autism insurance information)
- National Autism Center’s A Parent’s Guide to Evidence-Based Practices and Autism
- Behavior Analyst Certification Board, Inc. (BACB)
What are the Things to Consider?

When trying to understand what might be contributing to challenging behaviors in any person at a certain point in time, the team needs to utilize a broad approach. Thoughtful consideration must be given to the various factors that might be resulting in the individual's actions. You may want to have your providers explore possible medical and mental health factors (also referred to as applying the principles of differential diagnosis). In this way, they can better evaluate what might set up, trigger, or maintain the behavior.

Some of these concerns might be quite obvious. For example, you would expect pain if a child has a visibly broken arm. However, other issues might require the skills of an expert who knows what subtle signs to look for, such as staring spells that might suggest seizure activity, certain behaviors that might suggest bullying or social anxiety, or patterns that suggest an additional mental health concern.

It might be helpful to know that in general people with developmental disabilities (including autism) are more likely to receive inadequate or inappropriate medical treatment. They receive fewer routine physical examinations, less preventative dental care and less mental health care than other Americans. People with communication issues are at greater risk of poor nutrition, overmedication, injury, neglect and abuse. There are many possible factors involved in these statistics, but certainly it is harder to care for someone who does not reliably say, "This hurts," or "Hey mom, why can't I see the blackboard at school?" Often, it is the parent's ability to be a watchful observer and careful reporter, combined with the skilled listening and evaluation of an experienced provider, that brings the necessary factors of a person with autism's health and other factors into consideration.

The following chart lists areas of potential consideration for the professionals on your team, and the type of questions you might ask in each area. This list is not complete, but hopefully it will support you and your team in considering topics that might be relevant to your loved one and his concerns. If this list suggests an area that your provider is not investigating, be sure to bring it up. Know that you may have to be persistent or consult with other team members for each of your concerns to get the attention your loved one deserves.

To read more about Mrs. Hane, please refer to Appendix A at the end of this section.

"Unplug" generally I lived in my own world relating to things, shiny coins, marbles and pretty objects that I collected and put in a secret place. I played intensely on these objects lining them up over and over in patterns only I understood. If anyone disturbed them I would tear them apart, banging my head against the floor or wall for fifteen minutes. Nothing seemed to assuage my rage, it served to me a predictable course. I pulled my hair, picked at my skin and bit my arms. When it was over I was very thirsty and tired. Often I returned to my activity to repair the interruption. My world was a house of cards, any breeze could collapse it. I was an escape artist. I ran wildly, arms flailing until I became too winded to continue. Then I fell down, rolled onto my back and stared at the sky. I usually fell asleep. I believe that I had seizures.

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Ruth Elaine Hane

High School and College I succeeded academically and socially pursuing artistic interests. I had many casual friends, none were close.

"High School and College I succeeded academically and socially pursuing artistic interests. I had many casual friends, none were close."

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### Things to Consider

<table>
<thead>
<tr>
<th>Possible Cause</th>
<th>Potential Areas of Focus</th>
<th>Questions to ask</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Pain</td>
<td></td>
<td>Could this person be in pain? e.g. ear infection? Toothache?</td>
</tr>
<tr>
<td>Seizure</td>
<td></td>
<td>Could this be seizure related?</td>
</tr>
<tr>
<td>Sedation / Poly pharmacy</td>
<td>Is this individual sedated? (multiple medications)</td>
<td>Is he on too many medications? Is he on the wrong medications or dose?</td>
</tr>
<tr>
<td>Insomnia/Inadequate sleep</td>
<td>Does the person get enough sleep?</td>
<td></td>
</tr>
<tr>
<td>Allergies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GI Issues/Nutrition</td>
<td>Does behavior respond to changes in diet or food?</td>
<td>Has the behavior responded to dietary interventions?</td>
</tr>
<tr>
<td>Dental concerns</td>
<td>When was the last dental exam?</td>
<td></td>
</tr>
<tr>
<td>Vision/Hearing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental health</td>
<td></td>
<td>Could this behavior be related to an undiagnosed mental illness? Could this behavior be related to an undiagnosed general syndrome?</td>
</tr>
<tr>
<td>Genetic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cognitive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intellectual ability</td>
<td>Are the demands on the individual too high or low for his cognitive level?</td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensory defensiveness</td>
<td>Is the behavior triggered by sensory overload? Is the behavior different in response to sensory overload?</td>
<td></td>
</tr>
<tr>
<td>Sensory Dy-regulation</td>
<td>Is the behavior regulated by sensory factors? Is the behavior attempting to meet sensory needs?</td>
<td></td>
</tr>
<tr>
<td>Process ing abilities</td>
<td>Are the person able to process information efficiently?</td>
<td></td>
</tr>
</tbody>
</table>
| Environmental factors | Family / Staff dynamics | Changes in family environment
Environmental reinforcement | Caregiver responses to behavior
Family / Staff / Educator / Caregiver responses to behavior Removal of a request? Other? |
| Family / Staff dynamics | Changes in environmental factors | |
| Adaptation of sensory system | Is the behavior different in response to changes in diet or food? | Has the behavior responded to dietary interventions? |
| Communication system | Communication system | |
| Proximal abilities | Intellectual abilities | |
| Cognitive | | |
| Mental illness | Co-occurring mental illnesses \ ADHD ODD | Could the behavior be exacerbating anxiety, depression, \ undiagnosed psychiatric disorders? Could this behavior be related to an undiagnosed mental illness? Could this behavior be related to an undiagnosed general syndrome? |
| Fragile X, Down Syndrome etc. | Genetic | |
| Vision/Hearing | | |
| Pain | Medical | Could the behavior be related to pain? Could this behavior be related to pain? |
| Allergies | | |
| Immunization/Inadequate sleep | | Is the person getting enough sleep? |
| Sedation / Poly Pharmacy | Seizure | |
| Multiple medications | | |
| Physical exam | | |
| E.g. ear infection / Toothache? | | |

Physical Concerns

As the previous chart outlines, there are many potential physical causes of and medical contributors to behavior.

Gathering information about pain and symptoms can be especially difficult in individuals with autism due to communication difficulties, variable responses to sensory input and pain and even in those with good verbal ability, a lack of self-awareness.

It is also important for the team to know about medical concerns that often accompany autism, or more specifically, the following:

- **Seizure disorder or epilepsy** occurs in as many as a quarter of individuals with autism. Spotting seizures can sometimes be tricky, since some seizures might occur at night but leave daytime effects, and others can appear sometimes tricky, since some seizure activity might be subtle. Appropriate evaluation and treatment can help.

- **Gastrointestinal complaints or digestive disorders** such as reflux, stomachache, constipation, bowel pain, and diarrhea are often reported in autism. Investigation can be difficult in light of language challenges, but treatment has been shown to improve comfort and increase access to learning environments.

- **Sleep disorders or disturbances** such as difficulty falling asleep, insomnia, sleep apnea (disrupted breathing), and nighttime waking in autism. Sleep is essential for physical and psychological restoration. If hand and nighttime waking are common in autism, sleep is often determined based on the child's level of sleep and needs cannot be taken at the same time, addressing sleep issues is important to consider since many individuals with autism respond to sensory input in an altered way.

- **Sensory issues** are important to consider, since many individuals with autism respond to sensory input in an altered way. Sounds are louder, lights are brighter, words and visuals cannot be taken in at the same time, and the world can be hurtful or confusing. It is also important to remember to evaluate sensory input. Have your child's eyesight and hearing checked? Make sure the doctor uses the right tools, since these concerns can change over time. Any of these factors might change a person's reaction and promote a behavioral response.

- **Allergies, immune dysfunction, or autoimmune conditions** may show behavioral features that vary with exposure. Seasonal or food allergies or intolerances only occur at certain times of year, or when a particular food is eaten. Some food intolerances can cause a behavioral response.

- **Headaches or migraines** can result in a person with autism waking with pain that you or I might overlook.

- **Genetic disorders** are associated with autism, and some can be accompanied by additional challenges that may be difficult to identify. Identifying genetic conditions such as autism, joint pain or other conditions can cause a negative impact and promote a behavioral response.

Physical Concerns
Reflections on my childhood:

“I had terrible belly pain, and I did not know what to do about it. So I would run. I ran for miles just to try to get away from the pain. Of course, it was a small town and everyone knew me, so eventually I would end up back at home.”

- RT, adult with autism

Other medical conditions have been noted in individuals with autism that may cause significant changes in behavior. These concerns may not immediately come to mind for your medical provider. But there is growing awareness of and investigation into the role they may play in autism, and sometimes in the appearance of challenging behaviors.

Whole body condition is important to consider in autism as being intertwined with autism. Other medical conditions have been noted in individuals with autism that may cause significant changes in behavior. These conditions may not immediately come to mind for your medical provider. But there is growing awareness of and investigation into the role they may play in autism.

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Whole body condition is important to consider in autism as being intertwined with autism. Other medical conditions have been noted in individuals with autism that may cause significant changes in behavior. These conditions may not immediately come to mind for your medical provider. But there is growing awareness of and investigation into the role they may play in autism.

Changing hormones and the onset of puberty can make a typical child seem like a stranger, and these changes might trigger some thoughts of additional considerations in your child (please see Appendices 2-3).
For some children, evaluations may have been skipped or avoided because of difficulty or fear of the procedures themselves. If anxiety about procedures affects the ability of your medical or dental team to evaluate your child, these tool kits, which were created by the Autism Treatment Network (ATN), might be helpful to you or your providers:

- Blood Draw Tool Kit
- Dental Tool Kit for Families
- Dental Tool Kit for Professionals

Mental Health Considerations

Studies of individuals on the autism spectrum show frequent overlap with symptoms that meet diagnostic criteria for other mental health conditions. This is a difficult area and interpretation often varies by provider, since many of the features of autism also occur in other named disorders and there is no distinct line. For instance, various providers might use different criteria in distinguishing between the repetitive behaviors of autism and a diagnosis of obsessive-compulsive disorder. Sometimes the features of depression, anxiety, post-traumatic stress, or other mental health conditions are significant enough that they stand on their own as worthy of specific diagnosis and treatment. When a person has two or more diagnosed conditions, this is called a co-morbid condition or dual diagnosis. Challenging behaviors are common in individuals with dual diagnoses, and it may be that another mental health provider might include differential diagnoses, medications, therapy, and/or cognitive behavior interventions to help.

The role of the mental health provider might include helping the team understand the features of a dual diagnosis, so that, for example, the uncontrollable tics of Tourette’s might be considered and treated as something different from behavioral stereotypy.

Statistics for dual diagnosis in individuals on the higher functioning end of the spectrum or with Asperger’s Syndrome are high, which might be because they are better able to report concerns. It may be that the combination of the social aspects of autism and the effects of the co-morbid condition combine to cause challenges that are higher. Other conditions might be harder to recognize, such as depression, anxiety, post-traumatic stress, or psychosis.

It is important to note that mental health disorders and symptoms should not be considered a failure of the evaluations that your provider has helped you understand the etiology of and may be able to help you manage together with your education/academic interventions. And the resulting behaviors can be unpredictable. If this is the case, your mental health provider should help you understand the situation better and may be able to help you develop strategies for your child that help minimize its effects.

If you may be able to determine subtle signs that your child is headed towards a surge and then develop a new plan, but you are not clear about which actions to take and what to expect in the future, the role of the mental health provider might include helping the team understand the features of a dual diagnosis, so that, for example, the uncontrollable tics of Tourette’s might be considered and treated as something different from behavioral stereotypy.

Mental Health Considerations

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Another potential factor is the role of adolescence in changing behaviors. Puberty is often a time when conditions such as depression and anxiety appear. The physiological changes, as well as the developmentally programmed need for greater independence and breaking away from parental control, are just as real in an individual with autism as they are in a typical teen. For those who have academic and functional skills closer to their peers, such as young people with Asperger’s Syndrome, teenage years can be a sensitive time when a growing awareness of their differences or difficulties making friends and fitting in becomes increasingly frustrating.

A mental health provider might be able to help your child, and also aid in your understanding of these changes and how you might adapt to grow with your child as he strives for more autonomy and self-advocacy.

Post-traumatic stress (PTSD) is another condition worthy of consideration, especially for someone who cannot describe what he has experienced. Some individuals may have been in situations that have caused significant stress, such as medical concerns/pain/procedures, changes in surroundings/staff/family, neglect, or abuse. It is important to be aware that research also shows a higher likelihood of sexual abuse in the developmentally disabled population.

Other individuals may feel additional stress in response to interventions that have targeted challenging behaviors using approaches such as seclusion (putting a person in a place alone), restraint (tying, wrapping or otherwise restricting a person’s ability to move), over correction, ‘aversives’ (interventions that are painful or disliked), or other punishments. In these instances, caregivers’ initial responses to challenging behavior may be instrumental in creating a disturbing cycle that raises stress and increases the likelihood of more difficult behaviors developing suddenly.

Recent research has shown preliminary evidence of biomarkers of depression in teenagers. A biomarker is a sign of an objective, measurable biological state. For many, the presence of a biomarker makes something real, like high cholesterol or an infection with a specific virus. In contrast, autism and most mental health concerns are diagnosed based on observed behaviors, and therefore more subjective and likely to be thought of as psychological in nature. Identification of biomarkers in autism is an objective of the research field, but even if only potential co-morbid conditions can be assessed this way, it could be helpful in defining concerns.
If your loved one takes medicine, it might also be worthwhile to talk to your doctor about the possible effects on behavior. Many of the medications we use affect more than just the intended outcome. These side effects can sometimes be quite significant and can change an individual’s sensitivity or ability to regulate. For example, some medications can be ototoxic—which means they might be damaging to the ears, causing sound sensitivities, dizziness or balance issues. Other medications might cause stomach pain in a person who never had digestive issues before. It is not just traditional psychotropic medications that need to be considered. It is possible that a prescription for acne medication might be having an effect that might trigger new behavior.

Carefully review side effect lists and discuss the side effects of each medication with your doctor, especially if your loved one is under the age of 18. Some medications can have unexpected or rebound effects. Layering on multiple medications at one time, called polypharmacy, can also have unintended effects. Some doctors have reported success in slowly taking a person off all medications to re-establish baseline in an effort to sort out what is the autism? from what is the medication? In one family, we saw a dramatic reduction in challenging behaviors after they were taken off all medications. It is wise to have multiple responders, as well as other ways to address challenging behaviors, even if medications are needed to achieve the same effect. Medication is not the only option, and other interventions may be needed. This Medication Guide is designed to help in defining your values and what kinds of medication might be useful.

”I recall that when Jack was little our doctor suggested that we try a stimulant. This was meant to calm and focus him. As time went on, Jack didn’t sleep for 48 hours sometimes, and we were all a mess as he was bouncing off the walls. We couldn’t imagine what he would be like without the benefit of those calming meds. Eventually we tried a weekend drug holiday as they often suggest for stimulants, and he was lethargic the whole weekend. Aha! We realized it was the drugs, not the autism, that was causing the behavior. In hindsight it seems obvious, but at the moment, it was hard to see the relationship.”

– SG, parent

As an individual grows and changes, medication may need to do so as well. For example, a larger dose might be needed more medication to achieve the same effect on attention or anxiety. Proper dosage can be very sensitive, particularly in individuals with autism.

Families often struggle with decisions about the role of medication in addressing challenging behaviors, and when and what kinds of medication might be useful. This Medication Guide is designed to help in defining your values and goals surrounding medication use. It also provides perspective and talking points to assist in speaking with your doctor and making decisions. It can be used for new medication decisions, or in re-evaluating current medications. Medications are not just for adults; children need medications to achieve the same effect on attention or anxiety. Medications specific to autism is needed more medication to achieve the same effect on attention or anxiety. Medication is not the only option, and other interventions may be needed. This Medication Guide is designed to help in defining your values and what kinds of medication might be useful.

In considering medication, note that proper dosage can be very sensitive, particularly in individuals with autism. It is important to track side effects and look for other concerns to ensure that the medication is helping where it is supposed to help and not causing other problems. Sometimes a provider might be able to help in defining your values and what kinds of medication might be useful.

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If medication is started, it is important to track side effects and look for other concerns to ensure that the medication is helping where it is supposed to help and not causing other problems. Sometimes a provider might be able to help in defining your values and what kinds of medication might be useful.

If your loved one takes medication, it might also be worthwhile to talk to your doctor about the possible effects on behavior. Many of the medications we use affect more than just the intended outcome. These side effects can sometimes be quite significant and can change an individual’s sensitivity or ability to regulate. For example, some medications can be ototoxic—which means they might be damaging to the ears, causing sound sensitivities, dizziness or balance issues. Other medications might cause stomach pain in a person who never had digestive issues before. It is not just traditional psychotropic medications that need to be considered. It is possible that a prescription for acne medication might be having an effect that might trigger new behavior.

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– SG, parent

As an individual grows and changes, medication may need to do so as well. For example, a larger dose might be needed more medication to achieve the same effect on attention or anxiety. Proper dosage can be very sensitive, particularly in individuals with autism.
The use of simple tracking scales for both target behaviors and side effects is another way to assess the effects of a medication. This might be undertaken in cooperation with a behavioral provider or team using their data collection systems, or you could create or modify something like this tracking scale:

<table>
<thead>
<tr>
<th>Behavior/Symptom Occurred</th>
<th>Morning</th>
<th>Midday</th>
<th>Evening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burping</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleepiness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses iPad to make request</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hitting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kicking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Date: _______________________________________
Medication Name: _____________________________
Medication Dose: ____________________________

Sometimes it is helpful to keep some team members or family members ‘blinded’ to a new intervention. Consideration of changes in the effects of medications should be ongoing. Sometimes adjusting dosage, changing the time of delivery (before vs. after meals, or in the morning, etc.), or other factors can help to increase the benefits and reduce the side effects of a medication.

We did not like the weight gain associated with the meds that Sammy was on, and we weren’t even sure it was helping. So, every few months, I would decrease his dose just as the doctor instructed, and I would start on a new medication. By Sunday afternoon, in the midst of some frustrating situation, I would tell my husband, “hey, I think Sammy is better today.” He would often reply, “are you doing that meds withdrawal experiment with Sammy again?”. We knew the meds were still working.

Being a careful observer and a good reporter to your doctor, and discussing both the benefits and downsides of a medication, can often help to manage a medication so that it is most helpful. Using a chart such as the one above can help you to see if the medication is effective. If medication is not working, or if the medication is causing more harm than good, it might be time to try a different medication.

We know that prescription medication is a part of your loved one’s profile, and it is important to maintain good records and share information among team members. It is even more important to maintain good records and share information if medical concerns are a feature of your loved one’s profile. So, it is important for you to see if the medication is effective. If medication is not working, or if the medication is causing more harm than good, it might be time to try a different medication.

The use of simple tracking scales for both target behaviors and side effects is another way to assess the effects of a medication.
Behavioral Considerations

When a person behaves in a way we find difficult or offensive, we often reflect on the impact of that person’s actions on ourselves—how we feel threatened or embarrassed or hurt. This is absolutely normal, but not always helpful. Instead, it is important to think about the behavior from the individual’s perspective.

What is so scary about entering this place that my child is so panicked that he has to bite me? What pain is occurring in his body that he might be trying to override by hitting himself in the head? Is this something biological over which he does not have control? If so, can we help him to learn how to adapt?

Shifting our thinking from how a particular behavior affects us (e.g., making it more difficult or disruptive for us) to what might be happening from the individual’s perspective is an important step in understanding behavior. Understanding the behavior will allow you to support the replacement of disturbing or maladaptive behaviors with functional skills.

Going back to the basics of behavior, it is important to consider the possible purpose or function. How does this behavior serve the person? Does he get something out of it? Does he get to escape something boring or difficult? Does he get attention? Does it allow him to assert a little bit of control over his life or surroundings? Does it help to block out pain? What is good about the behavior? Is he trying to tell me something?

Taking the time to understand the function can often give a window into the motivation behind the behavior. Proper evaluation of function is usually essential to crafting an appropriate response.

If a child kicks when it is time to go to gym class, what is the likely reason for the kicking? Is it to avoid going to gym? Has the child discovered that kicking is an effective way of making his point? Or is the child kicking to escape something boring or difficult? Or perhaps the child is kicking to escape something that he finds hurtful or disturbing?

For example, suppose a child kicks when it is time to go to gym class and the response to his kicking is to put him in a time-out. Is this the best way to address the behavior? Is there a better way of coping with gym class (e.g., arranging for a different activity) or finding a way of changing the gym environment (e.g., putting the child in a different group)?

Understanding behavior. Understanding the behavior will allow you to support the replacement of disruptive or maladaptive behaviors with functional skills. It is an important step in finding ways to support the child’s development and the classroom’s needs.

It is so easy to jump to conclusions and think about the behavior from our own perspective. Instead, it is important to think about the behavior from the individual’s perspective.

When a person behaves in a way we find difficult or disruptive, we often reflect on the impact of that person’s actions on us—how we feel threatened or embarrassed or hurt. This is absolutely normal, but not always helpful.
In the field of Applied Behavior Analysis, the three components that are documented and considered in looking at a specific behavioral episode are called A-B-C (antecedent-behavior-consequence) analysis, and include the following components:

- A (Antecedent): The event that occurs immediately before the behavior
- B (Behavior): The occurrence of the target problem behavior (record frequency)
- C (Consequence): The event that immediately follows the occurrence of the behavior

These behaviors may be tracked using a sheet such as this:

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Antecedent</th>
<th>Behavior</th>
<th>Consequence</th>
<th>Comments</th>
</tr>
</thead>
</table>

**Example ABC Sheet**

- **Student:** ____________________________________
- **Observer:** __________________________________
- **Target Behavior:** ____________________________________
- **Antecedent:** The event that occurs immediately before the behavior
- **Behavior:** The occurrence of the target problem behavior (record frequency)
- **Consequence:** The event that immediately follows the occurrence of the behavior
- **Comments:**

In the field of Applied Behavior Analysis, the three components that are documented and considered in looking at a specific behavioral episode are called A-B-C (antecedent-behavior-consequence) analysis, and include the following components:
A professional with expertise in behavioral assessment and intervention (e.g. a BCBA) will use a variety of tools to help understand the function of a behavior at any given point in time. It is important to remember that the scales are tools, not answers. A good functional behavior assessment (FBA) will use several measures—questionnaires, observational assessments, active listening, and the professional’s experience and background.

An FBA should be broad based and should take into account the observations of behaviors and how and when they occur. They should also seek to be empathetic and to understand why the person might feel the need to behave in a certain way. Attempts to challenge the individual should never be done without the individual’s consent in the problem behavior.

After defining and evaluating the behaviors, the behavioral team, teaching staff or other providers should explain the results to you and develop instructional strategies using Positive Behavior Supports (PBS) and Reinforcement Strategies. Using Positive Behavior Supports is a way to promote functional skill development and explain the evidence to you and develop instructional strategies without challenging the individual. The behavioral team, teaching staff or other providers should also be able to provide the support.

If you do not have access to a behavioral support provider or team, you can begin to become a more advanced observer by using positive behavior supports, training and resources for families, schools, and staff, and strategies for building positive and productive behavior. If your health insurance provider may cover the costs of the services, providers such as Barbara Doyle’s data collection and communication dictionary may be helpful.

The following resources will help you learn more about how behavior is often evaluated and considered:

- Parents’ Guide to Functional Assessment
- Functional Behavioral Assessment and Positive Interventions: What Parents Need to Know
- Targeting the Big Three parent training manual
- PBS (Positive Behavioral Supports) manual
- Functional Behavioral Assessment and Positive Interventions: What Parents Need to Know

Replacing this behavior with skills is often evaluated and considered.

A good professional will use several measures—questionnaires, observational assessments, active listening, and the professional’s experience and background. The scales are tools, not answers. A good functional behavior assessment (FBA) will use several measures—questionnaires, observational assessments, active listening, and the professional’s experience and background.
Other Concerns to Consider

Communication Issues

Teachers, behavioral providers and/or speech pathologists should also evaluate the functional communication skills available to an individual, as this can be a critical factor. After all, behavior is often a form of communication—sometimes even the only functional form available to an individual who has not learned other skills.

It will be helpful to consider:

- Did he understand what I said?
- Can he independently use speech or other forms of communication to raise concerns? Report pain? Make requests? Ask to get away?
- If not verbally, does he have cards or a device that he uses independently for this?
- Even if he can speak well, does he have the language or the confidence to make his needs and concerns known verbally?
- Sometimes even highly functional individuals with autism can have difficulty communicating certain concerns.

If supports and training in functional communication are needed, there are a variety of systems that can be considered and developed.

Many skilled autism intervention teams have also developed expertise in communication supports and interventions.

It is essential that the functional communication system is something your child can initiate and use to express wants, needs and concerns known independently. If not, it is likely he is finding other ways to express wants, needs and concerns known independently.

- Sometimes the only form of communication that an individual who has not learned other skills—such as PECS and voice output devices—is to write.

"He started pointing. He was learning to ask!"

"He started pointing. He was learning to ask!"

He started pointing. He was learning to ask!

"He started pointing. He was learning to ask!

He started pointing. He was learning to ask!

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He started pointing. He was learning to ask!"
Individuals with autism often report on their different ways of experiencing the world, and it is helpful to keep these issues in mind when considering a person’s specific behaviors. A child may scream or run out of the singing of the Happy Birthday song not to be difficult, but because the singing and/or the cheering that follows is truly painful for him. Often these responses are more like reflexes than behavioral choices. When a person stays away from certain experiences—sounds, touch, smells, food tastes/textures, certain types of movement, etc., it is often called sensory avoidance or sensory defensiveness. Even in these same individuals, there is often a contrasting need for additional stimulation of certain senses as a way of maintaining attention or achieving a calmer state. This is called sensory-seeking behavior.

It is important to consider whether the individual has some sensory need that is otherwise not being met. Is he jumping up and down because it feels good? Alternatively, is there sensory defensiveness? Is there something about this tag in his shirt, this lighting, this sound, this crowd, these odors that he finds painful or overwhelming? Sensory concerns are very real for any of us, but it may be more so for those who do not understand what changes are happening in their environment and how it might impact them.

Support Systems and Environment—Family, Staff, Supports Dynamics

Change is difficult for any of us, but it may be more so for those who do not understand what changes are happening in their environment and how it might impact them.
Appendix 1

Ruth Elaine Hane, who was diagnosed with High Functioning Autism in 1995, lives in Minneapolis, with her husband and their two cats. Contributing author to Ask and Tell: Self-Advocacy and Disclosure for People on the Autism Spectrum and Sharing Our Stories and numerous other publications, Ruth Elaine mesmerizes audiences with her vivid memories of growing up in a large family without knowing the characteristics of autism. Born as a Rubella measles baby, unable to swallow or tolerate food, Ruth Elaine did not talk until nearly five years old. A Rubella measles baby, unable to swallow or tolerate food, Ruth Elaine did not talk until nearly five years old.

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Appendix 2

Common “problem” behaviors and speculations about their causes

Ruth Myers, MD, James Salbenblatt, MD, Melodie Blackridge, MD
Common “problem” behaviors and speculations about their causes continued

Ruth Myers, MD

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Back pain
Hip pain
Costochondral reflux
Strieled forward

tinea capitis (fungal infection of the head)
Mastoiditis (inflammation of bone behind the ear)
Otitis (ear ache)
Seizure
Dental
Infection
Depression

Head banging

Angina
Costochondritis/“slipped rib syndrome”
Cassiteophagal reflux
Pneumonia
Anemia
Somatizing/dissociative disorder

Common “problem” behaviors and speculations about their causes continued

Pain
Diabetes mellitus
Pain
Seizure
Migraine
Dental

Self-resistance/fixation

Scabies
Liver/renal disorders
Drug effects
Eczema

General summing

Ruth Myers, MD, James Salamone, MD, Melodee Blackledge, MD
What are the Positive Strategies for Supporting Behavior Improvement?

As highlighted in the previous section, there are many possible contributors to the development of challenging behaviors. It is important to investigate and evaluate these, but also to take action sooner rather than later, since many behaviors can become increasingly intense and harder to change as time goes on.

Often a necessary approach to managing behavior involves a combination of addressing underlying physical and mental health concerns, using the behavioral and educational supports to teach replacement skills and self-regulation. There is no magic pill, but there are a number of strategies that can often be helpful.

A plan for you and your team should meet your essential elements: Clarity: Information about the plan, expectations, and procedures are clear to the individual, family, and any other team members.

Consistency: Team and family members are on the same page with interventions and approaches, and strive to apply the same expectations and rewards.

When several challenging behaviors exist, it is important to establish priorities. You may want to first target behaviors that are particularly dangerous, or skills that would help to improve situations across several behaviors.

Supporting Behavior Improvement:

The use of Positive Behavior Supports is more than just a politically correct approach to behavior management. Research shows that it is effective. The alternative is usually punishment, which decreases the likelihood of a behavior by taking something away (such as removing a favorite toy) or doing something unpleasant (yelling, spanking). While punishment might work immediately, it has been shown to be ineffective in the long run and can increase aggressive behavior, provide a model for additional undesirable behaviors, and strain the relationships between children and their caregivers. Positive Behavior Support (PBS) acknowledges that controlling access to reinforcement is necessary when trying to change behavior, but does not condone the use of aversive (e.g., demeaning, painful) procedures to suppress behavior. Such approaches have demonstrated to be ineffective in producing durable changes in people’s behavior and do not improve the quality of their lives.

If you have made changes to improve your child’s health or happiness, and these have not helped to improve his behavior in a reasonable amount of time (a couple of weeks), you are concerned about their safety, you may need to get help.

If a child is likely to leave the table or throw his plate when he feels overwhelmed, this is a functional behavior. In contrast, if a non-verbal child is likely to speak in full sentences over time as he learns to hold up a take-a-break card when he needs to leave the table, this is not a functional behavior.

If your child is likely to behave aggressively, this is not always functional. The alternative is often to punish, which can be effective in the short term, but can lead to increased aggressive behavior, provide a model for additional undesirable behaviors, and strain the relationships with caregivers and family members.

A plan for you and your team should meet your essential elements:

■ Clarity: Information about the plan, expectations, and procedures are clear to the individual, family, and any other team members.

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When several challenging behaviors exist, it is important to establish priorities. You may want to first target behaviors that are particularly dangerous, or skills that would help to improve situations across several behaviors.
Simplicity: Supports are simple, practical and accessible so that everyone on the team, including the family, can be successful in making it happen. If you don’t understand or cannot manage a complicated proposed behavior intervention plan, speak up!

In the end, you are trying to teach your child that life is better and that he can get what he needs, without having to resort to challenging behaviors. The suggestions below are strategies to help make interventions with that person effective to stand up during times.

It may be more important to address a behavior such as interrupting others in class, called “A-B-C” data, because interrupting has the function of attention, the function that was changed over time. A-B-C data refer to indicators that are scored and interpreted (and usually manual) when evaluating the data (e.g., duration, frequency, intensity). Data is often scored by counting, measuring, and summarizing. Data often indicate that more investigation and understanding is needed, and the plan may need to be modified to be effective.

Setting Realistic Behavioral Goals:

Setting goals allows us to objectively measure progress towards an identified desired outcome. It also allows us to identify what matters to the individual we are helping to address behavior. It affects how we address attention on progress towards small yet meaningful changes in their lives and the lives of those we care for. Making goals realistic at the outset is crucial. It can help parents and caregivers appreciate that they are making progress toward an improvement in their child’s life.

Information on supports for teaching behavioral management can be found in the Autism Treatment Network’s An Introduction to Behavioral Health Treatments and Applied Behavior Analysis: A Parent’s Guide.

Links can be found here.

Links are portable and simple to use. They are increasing numbers of tools and apps for behavior tracking that help make interventions more effective. These links can be found here.

**Communication:** Even small behavior improvements are important to keep the teaching and the positive supports in place to continue to help your child develop good habits and more adaptive skills.
Adapt the Environment

As you learn to think like a detective about your child’s behavior, your observations (or the FBA) are likely to show that behavior occurs at specific times, with certain people or in particular environments. You and your team will need to tune in, learning to recognize the signs of increasing tension, anxiety or frustration that eventually lead to challenging behaviors. Often there is a ramping up, or escalation period, and learning to recognize that early and using many of the approaches here can help to calm a situation and prevent behavioral outbursts. Sometimes these signs may be very subtle—red ears, a tapping foot, heavier breathing, higher pitched speech is a common example. You can sometimes help encourage people to talk about being aware of these signs by asking questions or providing prompts. For example, “Is there anything you need to say to the people you are with before you can feel comfortable?” It may be an obvious question, but people need to be encouraged to open up about their needs to make meaningful progress.

One of the barriers that can often find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensively, so the space itself to bathroom itself. Often you can find that people with ASD can be very reactive defensive
What else can I do to promote a safe environment?

Very街道现右话, I can see that you are asking what else you can do and I hope that our plans have changed.

Positive behavior supports:

- Implement positive behavior supports:
  - Teach self-control and empathy.
  - Provide positive reinforcement.
  - Use visual aids.

Respect and listen to others:

- Communicate with others:
  - Share your child's needs and concerns.
  - Use stickers, cards, or other visual aids.

Preparation for an autism emergency:

- Make a plan:
  - Identify a safe environment.
  - Develop a safety plan.

Communicate with others:

- Share your child's needs and concerns.
- Use visual aids and stickers.
- Develop a safety plan.
- Communicate with others in the community.

I carry a note card:

- I post these cards in the windows of my car, on the front door of my house and on other environments like family member's houses.
- My child has autism and I need to be prepared in case of an emergency.

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Provide clear expectations of behavior:
Show or tell your child what you expect of him using visual aids, photographs or video models. A great way to teach new skills is Tell-Show-Do.

Set him up for success:
Provide accommodations. Accept one word answers instead of demanding a whole sentence. Use a larger plate and offer a spoon to allow him to be neater at the dinner table. Use Velcro shoes or self-tying laces if tying is too frustrating.

Ignore the challenging behavior:
Do your best to keep the challenging behavior from serving as his way of communicating or winning. This is hard to do, but in the long run it is effective. Do not allow his screams to get him out of brushing his teeth, or his biting to get him the lollipop that he wants. Behaviors may get worse before they start to get better.

Alternate tasks:
Do something that is fun, motivating or that your child is good at. Then try something hard. He will be less inclined to give up or get frustrated if he is already in a positive framework.

Teach and interact at your child’s learning level:
Take care to set him up for growth and accomplishment, rather than just to address his deficits. Teach him to set his own goals for growth and achievement.

Give choices, but within parameters:
Everyone needs to be in control of something, even if it is as simple as "Do you want to eat first, or paint first?"

Provide access to breaks:
Teach the individual to request a break when he needs to regroup (e.g., use a PECS card that represents "break"). Be sure to provide the break when he asks to ensure that this option and the request are not a punishment.

Promote the use of a safe, calm-down place:
Teach him to recognize when he needs to go there. This is a positive strategy, not a punishment.

Promote positive/proactive language:
Use language that describes what you want the individual to do, rather than describing what you want the individual to stop (e.g., I love how you used a tissue!, stop picking your nose!).

Provide feedback and increase opportunities for success and reinforcement for you, your family, and your loved one with autism.
Set up reinforcement systems: Use simple predictable processes that reward your child for desired behavior.

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Teach Skills and Replacement Behaviors

Since behavior often represents communication, it is essential to replace behavior by building more adaptive skills. It is important that you and your team not assume that a child has the skills needed to do something ‘the right way’ and that you are prepared to use systematic instruction and motivation to build new abilities.

Focus on communication and functional skills to promote greater independence, social skills to promote greater independence, social skills, and self-regulation skills.

Communication, more than any other aspect of a child's life, is a key element in determining the kind of life that a child can lead. Good communication is essential to the development of social skills, and to the ability to express oneself in a way that is understandable to others.

When you adjust to give different feedback or to help your child develop a new skill, celebrate yourself as much as you celebrate your child's growth! Reward a sibling for being extra patient or modeling a skill you are teaching. Use the pride in your successes to help you stay focused and dedicated, and to help you reflect on the good things in your child and your family.

It is essential to teach skills in the context of a positive learning situation, which is NOT while a behavior is occurring. These situations need to be part of a comprehensive educational plan. Just like math facts, they may need to be practiced many times during the day when the child is calm and attentive. Label, teach, and ready to be practiced many times during the day when the child is calm and attentive. Label, teach, and ready to be practiced many times during the day when the child is calm and attentive.

To learn, read, and reach your child and your family.

Make your own family a priority. Reward your child for being extra patient or modeling a skill you are teaching. Use the pride in your successes to help you stay focused and dedicated, and to help you reflect on the good things in your child and your family.

When you adjust to give different feedback or to help your child develop a new skill, celebrate yourself as much as you celebrate your child's growth! Reward a sibling for being extra patient or modeling a skill you are teaching. Use the pride in your successes to help you stay focused and dedicated, and to help you reflect on the good things in your child and your family.

Teach Skills and Replacement Behaviors

Severe Behavior Problems: A Functional Communication Training Approach (Treatment Manuals for


The National Professional Development Centers' Functional Communication Training

Develop and expand functional communication: Find a way to build effective communication that is

Good things in your child and your family.

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Teach Skills and Replacement Behaviors

since behavior often represents communication, it is essential to replace behavior by building more adaptive skills. It is important that you and your team not assume that a child has the skills needed to do something “the right way” and that you are prepared to use systematic instruction and motivation to build new abilities.

Since behavior often represents communication, it is essential to replace behavior by building more adaptive skills.
Developing a voice can be life changing, and finding the right supports can help to increase functional communication in a variety of ways. For one dramatic example, watch Carly’s story.

Teach Social Skills: Use social stories to explain expectations and build skills and awareness. Recognizing that communication in a variety of ways—oral, written, and graphical—will increase the likelihood of successful social situations.

Teach Self-Control and Behavioral Strategies: Teaching self-control is essential to a person’s ability to remain calm in the face of the assaults that the world will undoubtedly bring. Your child is most likely to show problem behaviors when he is in an emotional state of anxiety or agitation. Strategies and programs for building self-regulation relate to both arousal and emotions. Many of us have had to learn these ourselves—counting to ten, taking a deep breath—and the same principles apply to the learning needs of individuals with autism.

My behavior began to improve when I started to learn about emotions—how to recognize them not only in others, but in myself. This was an essential step to learning self-regulation, and it was then that I started to take more control of my actions.

Review additional apps and hundreds of Sample Behavior Charts and Targets, including feeling charts.

Find ways to assess and ways to calm your child, which can vary from person to person, and each theme.

Teach the individual to recognize the triggers for his behavior, and ways to avoid or cope with these issues or concerns.

Teach self-control and behavioral strategies using social stories or Cognitive-Picture Rehearsal.

Engage Behavioral Relaxation Training (BRT) which uses motor exercises (Posey, breathing, etc.) to teach recognition of arousal levels.

Use The Incredible 5-Point Scale to teach self-awareness and emotion.

Other Autism Apps, such as Proloquo2

Other Autism Apps, such as ReDo

Other Autism Apps, such as Picture Exchange Communication System (PECS) and Associated Apps

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Find providers who use Cognitive Behavior Therapy or teach cause and effect, self-reflection, and social understanding through tools such as the Social Autopsy. While these techniques lend themselves to more verbal individuals, they can be used with improvements of all verbal abilities with appropriate accommodations such as use of visuals and role-play.

Teach Self-Management Skills:

1. How to teach self-management to people with severe disabilities: A training manual, by Lynn Koegel
2. Self-Management for Children With High-Functioning Autism Spectrum Disorders, by Lee A. Wilkinson

Promote Exercise:

- The Benfits of Sports and Exercise in Autism
- Top 8 Exercises for Autism Fitness from AutismFitness.com
- Autism Fitness Exercise Videos from AutismFitness.com
- Editor’s Note: This story reflects the need for the team to take into consideration the culture and comfort of those involved in the intervention. Your family’s perspective and concerns need to be considered as you plan to address your child’s needs.

Address Hormones and Sexuality Considerations:

Promote Exercise: Exercises can be a powerful factor in overall quality of life for reasons beyond just physical fitness and weight issues. Research shows that aerobic exercise can improve behavior, decrease self-stimulatory behaviors such as rocking and spinning, and increase social and self-confidence. However, finding the right fit for a specific person can be challenging. Challenges of autism (e.g., obtaining and maintaining a social presence in team sports) can require a tailored exercise regimen that addresses these specific challenges. Incorporation of physical activity in an autism intervention program can address some of these specific challenges, increase self-confidence and social interactions, and improve overall quality of life. The same interventions that are used to teach other skills (ABA, structured teaching, etc.) can be used to build exercise skills and routines.

2. Self-Management for Children With High-Functioning Autism Spectrum Disorders, by Lee A. Wilkinson

- Self-management to people with severe disabilities: A training manual, by Lynn Koegel
- Self-management focuses on becoming aware of one’s actions and learning responsibility for behavior and tasks without the support of caregivers. This is especially important in the adolescent years, as young adults with autism often feel the need for greater autonomy and independence just like their peers. However, the communication and social aspects of team sports can be challenging. Sometimes the behavior of autism (e.g., lack of social interaction and communication) can influence participation. Seeking sports and other activities that are well suited to the communicative and social needs of children with autism can increase physical activity and social interactions.

- Addressing Sensory Issues: Sensory issues such as visual or sensory overload can be a barrier to participation in physical activity. Sensory integration and accommodation (e.g., using different visual and auditory cues) can be helpful in adapting physical activity to meet the needs of children with autism. The benefits of sports and exercise in autism can be significant for children with autism, as they can improve physical fitness, social interactions, and self-confidence.

- Top 8 Exercises for Autism Fitness from AutismFitness.com
- Autism Fitness Exercise Videos from AutismFitness.com

Editor’s Note: This story reflects the need for the team to take into consideration the culture and comfort of those involved in the intervention. Your family’s perspective and concerns need to be considered as you plan to address your child’s needs.

“Just like any other teenage boy, my 13 year old son with autism started showing occasional, unexpected erections. He found them funny, but obviously others did not. We explained to him that this was a normal part of his body, and that it was something that he needed to keep private. Even if he understood what we were saying, we recognized that it would be difficult to explain to others without the support of caregivers. This is especially important in the adolescent years, as young adults with autism often feel the need for greater autonomy and independence just like their peers. However, the communication and social aspects of team sports can be challenging. Sometimes the behavior of autism (e.g., lack of social interaction and communication) can influence participation. Seeking sports and other activities that are well suited to the communicative and social needs of children with autism can increase physical activity and social interactions.”

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Punishment vs. Rewards: What does science tell us?

Punishment is often used in shaping behavior. It works because it reduces the chances that the behavior will happen again. Punishment often takes two forms—doing something such as spanking or giving extra chores, or taking something away such as TV time or the car keys. We often use punishment in its more subtle forms without even realizing it—raising our voices, removing a favorite toy or withdrawing attention.

The short term consequences of punishment bring focus to a problem and may stop the behavior in the moment. But studies show that punishment is largely ineffective in the long run, especially when it is not used together with positive and preventive approaches. It can promote emotional responses such as crying and fearfulness, and aggressive behavior by providing a model (e.g. hitting). It can also promote a desire for escape and avoidance of the person or the situation that caused the punishment. It often needs to be repeated and often becomes more intense, because punishment may teach what not to do, but does not build skills for what to do. The negative feelings associated with punishment may lead to fear of punishment, which then leads to avoiding the behavior in the future. The negative feelings associated with punishment are learned and may lead to a cycle of fear and avoidance of the person or the situation that caused the punishment.

Of course, every child exhibits behavior that needs to be corrected, or shaped, so what else can I do? Rewards, or using reinforcement, are one of the most consistent ways to change behavior and build desirable responses. For people with jobs, the reward is a paycheck at the end of the month. Children, especially those with autism, need their rewards much more immediately, and in connection with the desired behavior. So, as soon as he buckles his seatbelt, he gets a high five.

Rewards can vary considerably from person to person. It is important to observe your child’s behavior and discover what he finds rewarding so that you can give him what he wants after he has responded in the way that you desire. What works for one child may not work for another.

When a tangible reward (M&M) is paired with a social reward (‘Great job saying Good Morning to your brother!’), the positive feelings associated with the social reward are paired with the desired behavior, and the social reward is likely to increase the likelihood of the desired behavior in the future. Reinforcers can vary considerably from person to person. It is important to observe your child’s behavior and discover what he finds rewarding so that you can give him what he wants after he has responded in the way that you desire. What works for one child may not work for another.

An Intervention Example: C.O.P.E.S.™

Victoria’s Secret catalogs and some modeling from Dad. I was so relieved that I could not be asked for this duty! But we were also concerned about what else we were teaching him. What if Victoria’s Secret became his ‘trigger’ and we went to the mall???

Consider this: what if you can give him what he wants after he has responded in the way that you desire. What works for one child may not work for another.

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Research shows that positive, reinforcement-based strategies are most effective in creating long-term behavioral change. However, it is also important to have an immediate response to a behavior in order to maintain safety or minimize disruptions. Planning in advance for the type of situation is important, so that caregivers across settings (home, school, etc.) are consistent in their responses and delivery of consequences. Most reactive strategies fall into three areas as listed below.

- Ignoring the behavior (extinction) is often used when the behavior is used for attention, and is mild or not threatening.
- Redirection, often supported with visuals, may involve redirection to an appropriate behavior or response and is often paired with positive strategies.
- Removal of a situation (time out) is often used for calming down opportunities.

Redirection can be a very powerful tool, giving you the opportunity to teach your child into a situation that is more positive, or more manageable. It also helps to avoid or calm an escalating situation. The use of a time out is very important, but it is also important to know when to use it and how to use it properly.

**When Joey was little, every time he spilled his glass of water, he banged his head on the edge of the table. I learned to clean-up the spilled water quickly, in order to avoid this self-injurious behavior. If I was really fast, he'd attack me on my way to cleaning it up—grabbing my hair and pulling. I also noticed that his aggression didn't stop once I had cleaned up the obvious puddle, but continued as I wiped-down the area to clean up the spilled water as well. It took time for me to realize that this behavior was not only harmful, but it was also reinforcing for him.**

By the time Joey was age 9, the entire family was very alert to the importance of not allowing the behavior to 'win.' We learned to clean-up the spilled water after he stops aggression, but before his angry behavior begins.

By the time Joey was age 9, the entire family was very alert to the importance of not allowing the behavior to 'win.' We learned to clean-up the spilled water after he stops aggression, but before his angry behavior begins.
Other strategies your behavioral team might employ include teaching accountability (if he spilled the milk, he is the one to clean it up), or using positive practice, sometimes known as do-overs. For example, if he let the door slam in someone's face, he might practice in the doorway how to enter the house and hold the door five or ten times.

In doing this, try to limit the sense of punishment, keeping positive strategies employed (reinforcement, praise) to build the desired behaviors over time.

A fun, enjoyable activity should be in place before adopting time-out (e.g. playing video game, visiting friends).

When behavior does occur, be careful not to:
- Feed into the behavior, give in or provide what your child wanted to get from the behavior
- Show disappointment or anger
- Lecture or threaten
- Physically intervene (unless necessary for safety, such as keeping a child from running into the street)

A new look at time-out

Contrary to popular belief, time-out is not sitting in a chair for a few minutes. Time-out is losing access to cool, fun things as a result of exhibiting problem behavior, usually by removing the individual from the setting that has those cool, fun things. Time-outs can only occur when the individual is in time-in. That is, if nothing enjoyable was happening before time-out, you are simply removing the individual from one non-stimulating, non-engaging room.

For example, if your child is watching her favorite TV show, but hits and screams at her sibling for getting in the way, taking her to a chair located in the same room will not serve as a time-out since she can still see and listen to the TV show. Removing her from accessing the TV completely, however, is an example of a time-out. In this case, time-in (watching a favorite show) was in place, allowing for time-out to be effective.

To administer:

1. Explain to your child what is happening. For example, if your child is hitting and screaming at her sibling, you could say, “You are hitting your brother, no TV. Go to time-out until you are calm.”
2. Go to time-out. This means you must take your child to a boring and neutral setting.
3. If your child is not calm after 10 seconds, you may use a timer to indicate when time-out will be over.
4. When the timer goes off, he should be allowed to return to what he was doing, i.e. time-in.

To avoid:

- Physical presence
- Locate on the internet
- Show disappointment or anger
- Feed into the behavior, give in or provide what your child wanted to get from the behavior
- When behavior occurs, be careful not to:
Behavioral Relaxation Training and Assessment
by Roger Poppen

Behavioral Relaxation Training (BRT): Facilitating acquisition in individuals with developmental disabilities
by Theodosia R. Paclawskyj, Ph.D., BCBA, and J. Helen Yoo, Ph.D.,

The Cycle of Tantrums, Rage, and Meltdowns in Children and Youth with Asperger Syndrome, High-Functioning Autism, and Related Disabilities
by Helen Yoo, Ph.D.

How to teach self-management to people with severe disabilities: A training manual
by Lynn Koegel

Self-Management for Children With High-Functioning Autism Spectrum Disorders
by Lee A. Wilkinson

Taking Care of Myself: A Hygiene, Puberty and Personal Curriculum for Young People with Autism
by Mary Wrobel

Targeting the Big Three: Challenging Behaviors, Mealtime Behaviors, and Toileting
by Helen Yoo, Ph.D, New York State Institute for Basic Research

Depression and Anxiety: Exercise Eases Symptoms
by Eric Chesson

Exercise for Mental Health
by Mayo Clinic

Autism Speaks Family Services Community Grant recipient

Tourette’s Syndrome: A Challenge for Behavioral Therapists, Medical Behaviors, and Tourette’s
by Mary Wrobel

How to teach self-management to people with severe disabilities: A training manual
by Lynn Koegel

High-Functioning Autism, and Related Disabilities
by Brenda Smith, Ph.D., and Anastasia Hubbard

The Cycle of Tantrums, Rage, and Meltdowns in Children and Youth with Asperger Syndrome
by Helen Yoo, Ph.D.

Behavioral Relaxation Training (BRT): Facilitating acquisition in individuals with developmental disabilities
by Roger Poppen

Resources:
C.O.P.E.S.™

The COPES program uses individualized programs for each of their students that incorporates the following elements:

<table>
<thead>
<tr>
<th>Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students were given immediate access to communication for emotional issues. Multi-access approaches were tailored to the student's needs using YES - NO boards, icons, and iPads with augmentative apps. Teach communication at his level and start with what is most essential.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Many of the students showed considerable anxiety and a complex array of escape and avoidance behaviors since they had no systems to help them organize and anticipate events. Daily schedule changes in schools and home can be confusing. Use a simple schedule and training on basic contingency management showed rapid changes in behavior and reduced anxiety.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tommy’s Schedule Monday</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00</td>
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<tr>
<td>9:15</td>
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<tr>
<td>9:30</td>
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<tr>
<td>10:00</td>
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<td>10:45</td>
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<td>11:30</td>
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<td>1:30</td>
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<td>2:00</td>
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<td>2:15</td>
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<td>3:00</td>
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<td>3:45</td>
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<tr>
<td>4:00</td>
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<tr>
<td>4:15</td>
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<tr>
<td>4:30</td>
</tr>
<tr>
<td>All Done</td>
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</tbody>
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Postive behavior supports: Even though all of the students had prior FBAs and complex contingency management systems, the interventions often failed since they were too little, too late. By being reactive instead of addressing why the behavior occurred in the first place, the previous interventions were sending the message that the student’s behavior was frustrating, but missing the opportunity to prevent its occurrence in the future. Prevention had to be addressed as a primary objective and replacement skills needed to be built using positive behavior supports. Simple token charts were introduced and each student was reinforced for success, as simple as walking into a room nicely to sitting for a minute in a chair. The students responded immediately to being honored and acknowledged for the things they did right, though they were in shock at first since they were accustomed to primarily negative feedback. You could almost see the questions in their faces—What do you mean I’m being given constant feedback? And it’s positive!

Example of reinforcement steps to earning computer time:

Emotional regulation: Starting on day one of the behavior support plan, each student was systematically taught to understand and identify his own regulatory state and escalation cycle. Proactive programming was essential. Empowerment and self-determination was a significant part of the program and the students responded immediately to their involvement in their plans. The plans were based on knowing that the student who understands that stress, anxiety and specific activities or situations often result in tension, frustration, and behaviors, is a student who has a chance of self-regulating.

The program has been taught successfully to numerous students with limited to no verbal skills. Individuals with limited verbal skills are often assumed to be without a full range of emotions, with limited ability to comprehend what others are saying. As a result they live frustrating lives. These students are often misunderstood and their emotions, feelings and responses are not fully considered. People talk about them as if they are not there and they make judgments and statements that do not take into account for the full depth of their feelings, thoughts and opinions.

Teaching the student his escalation cycle does two main things:

- it allows him to have some say or opinion in his program
- it teaches him to be aware of the things that cause him anxiety or frustration that often leads to disruptive behaviors, and teaches him corresponding strategies for self-regulation
Sensory and social: Each student has a systematic exposure to community and social outings that includes the golden rule—no community and/or social access when the student is in any other state but green. This decreases the chances for the student to be in dangerous situations where staff have to try to manage behavior and risk inadvertently reinforcing behaviors because the safety risk is too high. Students are encouraged to develop reciprocal relationships and social skills as a way to decrease the risk of engagement in behaviors that are developmentally inappropriate for their age. Social success is based on the student being motivated and able to access the social situation without frustrating others. Reciprocity and interaction are key to social success. The social success of the student is based on the student being motivated and able to access the social situation.

Social skills are taught based on the student being motivated and able to access the social situation without frustrating others. The social success of the student is based on the student being motivated and able to access the social situation without frustrating others.

An example of the visuals used to teach a student to identify his regulatory state and what to do to get to green:

### My Self-Management Plan

<table>
<thead>
<tr>
<th>I AM CALM</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>get preferred breaks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>can earn my points and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>do respond to others and look relaxed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>can answer with my voice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>can follow my schedule</td>
<td></td>
<td></td>
</tr>
<tr>
<td>can sit and focus</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>I AM LOW</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>need to take deep breaths</td>
<td></td>
<td></td>
</tr>
<tr>
<td>explain what's going on</td>
<td></td>
<td></td>
</tr>
<tr>
<td>need to be in place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ask for help</td>
<td></td>
<td></td>
</tr>
<tr>
<td>take sensory break</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>I AM HIGH</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I can sit and focus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can follow my schedule</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can answer with my voice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I do respond to others and look relaxed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can earn my points and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>need everything to be in its place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>look red and sad</td>
<td></td>
<td></td>
</tr>
<tr>
<td>click my neck and fingers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>bite my tongue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>body are tense</td>
<td></td>
<td></td>
</tr>
<tr>
<td>need to take preferred breaks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>go to the beanbag and stay there</td>
<td></td>
<td></td>
</tr>
<tr>
<td>need to be in a safe place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sit and breath, deep breaths</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What I need to do:

- Cry loudly
- Yell loud
- Hit and bite
- Grip others
- Do this way!
What might I need to know about Managing a Crisis Situation?

Generally, when a child is engaged in the active, disruptive stage of a behavior, such as a tantrum or aggression, the essential focus has to be on the safety of the individual, those around them, and the protection of property. It is important to keep in mind that when he is in full meltdown mode, he is not capable of reasoning, being redirected, or learning replacement skills. However, this level of agitation does not usually come out of thin air. You can learn skills to help anticipate and turn around an escalating situation that may be headed in this direction.

Have a Plan

Know Ways to Calm an Escalating Situation

In case of emergency, call 9-1-1. Always take suicide threats seriously.

Prepared and parents who have experienced crisis highlight the need to maintain safety first and foremost. This is not the time to teach, make demands, or to shape behavior.

If your child is above age 18 and you need to continue to make decisions for him
Know skills and procedures promoting de-escalation that are paired at each level with increasing levels of agitation
Be aware of their history, fears and needs of the individual
Hands on training and practice for caregivers and staff
Lists of things to do and NOT to do specific to the history, fears and needs of the individual

Have a Plan

Have a Plan

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In the midst of a Crisis Situation

- Remain as calm as possible
- Assess the severity of the situation
- Determine whom to contact:
  - Dial 211 for free, confidential crisis counseling
  - Dial 911 for emergencies: fire, life-threatening situations, crime in process, serious medical problems
  - Call local police for non-emergencies

When severe and dangerous behaviors pose a risk of physical harm to the individual or others in the vicinity, physical restraints or seclusion are sometimes necessary to maintain safety.

Physical restraints are physical restrictions immobilizing or reducing the ability of an individual to move their arms, legs, or head. Seclusion (putting the individual briefly in a room by themselves to calm down) is often employed in schools as a brief intervention to calm an individual.

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Improper use of these techniques can have serious consequences physically and emotionally. Parents and caregivers should seek out and receive professional guidance and training on positive behavior interventions and supports. These techniques can have serious consequences physically and emotionally. Parents and caregivers should seek out and receive professional guidance and training on positive behavior interventions and supports.
Emergency Personal Response

\textit{K.Y., a parent}

\begin{itemize}
  \item Only one word: the meds \textbf{need} to be there in my kit.
  \item One time my daughter’s meds had dropped out on plane, and my daughter had to go to the ER. As I turned out, I gave her frequently; make sure I bring any medication for my child and for myself so that neither one of us get off our meds.
\end{itemize}
How do I know it is time to get more help?

Many families work diligently at home to help their children with autism negotiate the many challenges the world presents for them. However, it is important and necessary to seek professional help when:

- Aggression or self-injury become recurrent risks to the individual, family or staff
- Unsafe behaviors, such as elopement and wandering, cannot be contained
- A threat of suicide is made
- An individual presents with persistent change in mood or behavior, such as frequent irritability or anxiety
- A child shows regression in skills
- The family can no longer care for the individual at home
- An individual presents with persistent change in mood or behavior, such as frequent irritability or anxiety
- A threat of suicide is made
- Unusual behaviors, such as development and wandering, cannot be contained
- Aggression of self-injury become recurrent risks to the individual, family or staff
- Many families work differently at home to help their children with autism negotiate the many challenges they face

Sometimes this journey starts with a trip to the Emergency Room, when a person is in crisis and the caregiver or family needs immediate help. Sometimes it occurs in a more planned way, at the advice or urging of a doctor, mental health provider or other member of a team.

What can I expect at the Emergency Room?

Whether it is for behavioral concerns or just necessary medical care, the emergency room can be a difficult place for people with autism. Treating autism patients in emergencies presents challenges. This document, manufactured by the Autism Society, describes some of these challenges and makes suggestions for medical staff regarding how they might be more accommodating. It might be helpful to share this information with your medical provider, your Behavioral Health Team or other important team members. Names and contact information for doctors, your behavioral provider or other important team members will be helpful. Having all of this information in writing will help the person be prepared in the event of a crisis.

What can I expect at the Emergency Room?

- If you are requesting a psychiatric evaluation, it is important to bring documentation of the behaviors that are causing concern, a psychiatric history, any previous psychiatric evaluations, recent FBA and/or BIP, a list of current and past medications and any other relevant information. Names and contact information for doctors, your behavioral provider or other important team members will be helpful. Having all of this information in writing will help the person be prepared in the event of a crisis.

- Alternatively, a call to the police might trigger their concern for the person or those around him, and the officer at the hospital might place the person on a Mental Health Hold. When a person is placed on a Mental Health Hold, they can usually be held for up to 72 hours for a psychiatric evaluation. This does not necessarily mean that the person will be held for the entire 72 hours. The evaluation can occur four or five times within 24 hours, even if the person wishes to leave. In either case, the person is not able to make medical decisions for themselves.

- It might be helpful to pack this in your emergency prep kit and pass it along to ER staff upon your arrival. Be prepared to advocate yourself.

- If the family needs immediate help, sometimes it occurs in a more planned way, at the advice of a doctor. Sometimes this journey starts with a trip to the Emergency Room, when a person is in crisis and the caregiver or family needs immediate help.

- The family can no longer care for the individual at home.
Many trips to the emergency room will involve calming the individual, often with medication, and then releasing him and sending him home. Arriving at an ER does not necessarily translate into an admission to the hospital. Sometimes, the ER visit will result in a longer stay of 1-2 weeks, with the length of stay sometimes a reflection of insurance issues.

If the hospital staff decides that the individual is at particular risk of harm to himself or others, they may recommend commitment to a mental hospital or psychiatric ward. It is important to know that if you or the adult does not approve, the law provides for a process known as Involuntary Commitment or Civil Commitment. This allows for court-ordered commitment of a person to a hospital or outpatient program against his will or protests.

Psychiatric Inpatient Hospitalization: How do you choose a facility?

Often individuals are brought to the nearest hospital or the closest one that has an open bed. While this may be the fastest response in a crisis, it is best to be at a facility that can best respond to the needs of your child. It is important to remember to bring your loved one’s necessary supports, including communication devices, visual aids, and sensory items, as well as a familiar blanket or pillow. Other factors, such as location and availability of services, should be considered.

What happens when you check into a hospital?

Just as you might do when planning a trip, it is important to remember to bring your loved one’s necessary supports, including communication devices, visual aids, and sensory items, as well as a familiar blanket or pillow.

Psychiatric Inpatient Hospitalization: How do you choose a facility?
in the transition tool kit section on "Legal Matters to Consider." If your child is a minor, you will need to obtain the child's informed consent. If your child is 18 or older, you will need a court order. If your child is under 18, you may need a court order for an involuntary commitment.

Parents may also have the right to an independent consultant to examine the patient and determine the patient's capacity to make medical decisions. If you are concerned about your child's treatment, you should discuss your concerns with the treating physician and other members of the hospital clinical team.

If you feel your child would be better served in a different setting, you should engage the attending physician and other members of the hospital clinical team in a discussion of the risks and benefits of changing treatment programs. While you know your child best, it is important to evaluate the implications for safety and treatment in any setting being considered.

Age of Majority and Guardianship:
For many years, you have been making decisions on behalf of your loved one with autism. But at the age of 18, the law says he is big enough to decide for himself, and can give the required "informed consent." He can refuse treatment of his own accord. Either way, unless you apply for and are granted guardianship, you lose your legal rights as a parent. If you think your loved one will need your assistance in making decisions on behalf of your loved one, you should engage the attending physician and other members of the hospital clinical team in a discussion of the risks and benefits of changing treatment programs.

Parents (or guardians) retain their legal rights for decision-making regarding the health and welfare of their child under the age of 18. Parents have the right to informed consent to treatment, including notification of the possible risks and benefits of any treatment that is proposed. Parents have the right to be involved in the planning and decision-making process, including the right to be present during the course of treatment.

Parents have the right to be informed of their child's health status and the right to receive copies of medical, behavioral and educational records. Parents have the right to make decisions regarding the child's health and welfare, including the right to make decisions on behalf of the child.

If you feel your child would be better served in a different setting, you should engage the attending physician and other members of the hospital clinical team in a discussion of the risks and benefits of changing treatment programs. While you know your child best, it is important to evaluate the implications for safety and treatment in any setting being considered.

Most hospitals are family-friendly and have extended visiting hours for children. Separating from your child can be difficult and leave you with feelings of guilt, but it is essential to remember that this is in the child's best interests. If your child needs specific help, and you need an opportunity to recover from a challenging situation, it is important to consider this in advance of his 18th birthday. If possible, sometimes setting up a support network of friends and family members will be important for you to learn about and consider your options. Always consult with your child and his healthcare providers to decide what is best for him. If you think your loved one will need your assistance in making decisions on behalf of your loved one, you should engage the attending physician and other members of the hospital clinical team in a discussion of the risks and benefits of changing treatment programs. While you know your child best, it is important to evaluate the implications for safety and treatment in any setting being considered.
What happens when the Hospital Stay is over? What is a Discharge Plan?

When the hospital stay is complete, your child or loved one should leave with a Discharge Plan created by the hospital, ideally with the input of other team members. It is not necessary for you to agree to the terms or components of the plan, but the hospital is required to counsel you, your loved one and other relevant team members about the components of the plan. The hospital is also supposed to begin implementation of the plan and assist in the coordination and connection to local social services organizations, making referrals or transfers and forwarding information and records as needed. The hospital is also supposed to begin implementation of the plan and assist in the coordination and connection to local social services organizations, making referrals or transfers and forwarding information and records as needed.

This network can be family, friends, or team members, and the hospital should work together involving others in the discharge process. You should be involved in the discharge planning and should have input into the plan. This network can be family, friends, or team members, and the hospital should work together involving others in the discharge process. You should be involved in the discharge planning and should have input into the plan.

For anyone who has been hospitalized for any reason, recovery is best when there is a solid support network.

The network can be family, friends, or team members, and the hospital should work together involving others in the discharge process. You should be involved in the discharge planning and should have input into the plan.

A discharge plan should include:

- A statement of your child's need, if any, for:
  - Supervision
  - Medication (what, when, how much)
  - Aftercare services and supports
  - Assistance in finding employment
  - Recommendation of type of residence in which your child is to live and a listing of the services available to your child in such residence
  - Lists of the organizations, facilities, and individuals who are available to provide services in accordance with each of your child's identified needs
  - Notice to the appropriate school district, if relevant, regarding the proposed discharge or release of your child
  - Follow-up evaluation plans
  - Evaluation of your child's need and potential eligibility for public benefits following discharge, including public assistance, Medicaid, and Supplemental Security Income

For anyone who has been hospitalized for any reason, recovery is best when there is a solid support network.

Contributions to this section were made by Matthew Siegel, M.D.
Long Term Solutions:
What if we just can’t do this anymore?

Sometimes, a team gels beautifully and medical supports and positive interventions are effective in bringing an individual with autism the sense of security and the skills he needs to thrive in his home or community environment. However, sometimes factors such as limited resources, dual diagnoses, biological triggers or learning history can mean that a family needs more support than can be provided at home, and alternate solutions need to be considered.

This is not an easy decision to make, and often comes with considerable stress for everyone involved. It is important to remember that this decision is NOT giving up on your child. In many ways, it is recognizing that your child needs more than you can provide, and taking the steps necessary to allow him to grow and thrive in a place that is able to provide what he needs. This might mean a place with a 24-hour staff who can provide something that is not possible for a single individual, or a residential facility that supports his physical concerns as much as his behavioral needs. It is hard to be consistent and upbeat and follow a behavior plan when you are exhausted and deflated. It is difficult to be a family and support each person’s needs, wants and growth, when everyone is afraid. Many families who have experienced a family member with significant challenging behaviors have reported on a much-improved relationship with their child once he was placed in a residential program that met his needs.

Residential placement is a personal decision that should be made when a family is no longer able to care for their child at home. For individuals with challenging behaviors such as aggression or self-injury, this may occur earlier in life than the usual transitions that occur in adulthood. It is also important to note that there are services that can be provided in the home that may allow families to continue to care for their child. However, when a family is no longer able to care for their child, this is a situation that requires a decision to be made. It is important to consider the needs of the child, and the needs of the family, when making this decision.

For help, visit these resources:

- Autism Speaks Housing & Residential Supports Tool Kit
- Autism Speaks Catalog of Residential Services
- National Disability Rights Network
- Disability.gov Housing Resources
- Global & Regional Asperger Syndrome Partnership (GRASP)
- List and map of GRASP support groups
- DHBA (Regional Asperger Syndrome Partnership (GRASP))
- Disability Housing Resources

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Where can we learn more?

- **Family and Caregiver Training**

This toolkit is a lot of information in writing, and that is not always the best way to learn. Families who need additional information and supports will benefit from specific training and supports.

- **Hands on Training:**
  - Ideally, this is from a behavior analyst or other behavioral provider who is part of your child's team.
  - It is individually designed to the needs of your child, your family, and responsive to the findings of the functional behavior assessment.

- **Insurance laws are increasingly providing coverage for autism services, including ABA and behavior supports.** Ask your doctor or case manager for suggestions.

- **State or local ABA or autism conferences:**
  - Many conferences, presentations and workshops will focus on autism and case studies related to the treatment of challenging behaviors, or skills that might help to replace those behaviors.

- **Parenting classes:**
  - Often held at autism support groups, local hospitals, YMCAs, social services agencies, and the National Alliance on Mental Illness. Only some will be autism-specific.
  - These classes may provide you with tips and skills as well as access to services, mentors, and other supports.

- **Watching SuperNanny episodes on TV or YouTube:**
  - She employs good behavioral strategies with respect to setting boundaries and expectations, staying calm, rewarding desired behaviors, and incorporating fun.

- **Taking care of yourself:**
  - Parenting can be hard enough, let alone when the demands of a child with special needs and challenging behaviors are added into the mix. Find strategies to improve your sleep, your resilience, and your ability to remain calm and patient.

- **The Autism Speaks Resource Guide**
  - Find respite care and support groups in your area.

- **Mental Health First Aid USA**
  - May also be helpful, especially in autism just as they do with typical children.

- **Autism Speaks**
  - Visit Autism Speaks Resource Guide to find respite care and support groups in your area.

- **My friends were always reaching out to me for lunch or a cup of coffee.**
  - Most of the time I felt too busy to stop and take them up on their offers.

- **Person because of it.**
  - I no longer made time every week to see my friends, or have a little ‘me’ time. I think I’m a better parent and person because of it.

- **AC, a mother**
Resources:

- 211 Database Service
- Available in much of the US, this service connects people with important community services sponsored by United Way Worldwide (UWW) and the Alliance for Information and Referral Systems (AIRS). Available in much of the US, this service connects people with important community services sponsored by United Way Worldwide (UWW) and the Alliance for Information and Referral Systems (AIRS).

- Provider Training
  - Mental Health First Aid USA
  - Quality Behavioral Solutions to Complex Behavior Problems
  - Crisis Prevention Institute
  - Safe and Civil Schools
  - The New England Center for Children "CALM" Curriculum
  - Kansas Institute for Positive Behavior Support
  - Positive Behavior Supports

Many schools and service providers will have trained staff accustomed to handling challenging behaviors. Others will not. Service providers who need additional information on positive supports and crisis prevention training can utilize the following resources for information and training:

- Positive Behavior Supports
- Kansas Institute for Positive Behavior Support
- The New England Center for Children "CALM" Curriculum
- Safe and Civil Schools
- Crisis Prevention Institute
- Quality Behavioral Solutions to Complex Behavior Problems
- Mental Health First Aid USA

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Conclusion

Autism can bring a family many challenges, especially when a loved one with autism exhibits behaviors that are challenging, disruptive, or dangerous. These are often experiences that our siblings, parents and best friends do not necessarily face the same concerns. As a result, many families experience high levels of stress, which can be difficult and unsettling. Parents and caregivers of children and adults with ASD often feel isolated, and many families with autism do not feel understood. Since they have not necessarily faced the same concerns. As a result, autism can bring a family many challenges, especially when a loved one with autism exhibits behaviors that are challenging, disruptive, or dangerous.
Challenging Behaviors Glossary

A-B-C Analysis: an approach to understanding behavior by examining the Antecedent (the cause), the Behavior, and the Consequence (the result).

ADHD (Attention Deficit Hyperactivity Disorder): a problem with inattentiveness, over-activity, impulsivity, or a combination, that is out of the normal range for a child's age and development.

Age of majority: the age established under state law when an individual is no longer a minor and has the legal rights and responsibilities of an adult.

Allergies: adverse immune responses or reactions to substances that are usually not harmful (i.e. pollen, peanuts, gluten).

Anxiety disorder: a pattern of constant worry or tension under many different circumstances.

Applied Behavior Analysis (ABA): the systematic approach to the assessment and evaluation of behavior, and the application of interventions that change behavior.

Audiologist: a professional who diagnoses and treats a patient’s hearing and balance problems using advanced technology and procedures.

Autism Spectrum Disorders: a group of complex disorders of brain development characterized, in varying degrees, by difficulties in social interaction, verbal and nonverbal communication and repetitive behaviors.

Behavioral disorder: a condition in which behavior significantly deviates from acceptable norms.

Behavioral drift: changes in behavioral patterns resulting from gradual and subtle alterations over time.

Behavioral stereotypy: repetitive or ritualistic movements such as body rocking or crossing and uncrossing of legs.

Behavioral subtypes: representative of null or minimal movement except for body rocking or crossing and uncrossing of legs.

Behavioral trajectory: changes in behavioral patterns resulting from gradual and subtle alterations over time.

Behavioral disorders: a condition in which behavior significantly deviates from acceptable norms.

Behavioral Health Assessment: a plan to improve a student’s behavior in school created based on the results of a Functional Behavior Assessment.

Blindness: an inability to see, often due to eye disease or injury.

Board Certified Behavior Analyst (BCBA): a professional certified to provide ABA therapy by the Behavior Analyst Certification Board (BACB).

Bipolar disorder: a brain disorder that causes unusual shifts in mood, energy, activity levels, and the ability to control, plan, and engage in daily activities.

Biological markers: an indicator of a certain biological state.

Biological and psychological unit: a psychological and psychiatric clinic within a hospital or research center that treats behavioral, anxiety and mood disorders.

Blind: unaware of a new or different intervention which prevents bias during evaluation.

Bulimia: an illness in which a person binge on food or has regular episodes of overeating and feels a loss of control, then uses different methods, such as vomiting or abusing laxatives, to prevent weight gain.

Bullying: an illness in which a person bullies on food or has regular episodes of overeating and feels a loss of control, then uses different methods, such as vomiting or abusing laxatives, to prevent weight gain.
Case manager: a professional from a school or service agency such as the Department of Developmental Disabilities who serves as a direct contact for families and helps gather resources, team members and ideas.

Catatonia: a brain disorder in which a person has repeated episodes of disrupted brain activity or "boltting," wandering or walking away.

Challenging behaviors: behaviors that are destructive and harmful to the individual or others, that prevent learning and cause others to label or isolate the individual for being odd or different.

Civil Commitment: a legal process in which an individual may be ordered into treatment against his or her will, including to a hospital.

Comorbid: pertaining to a disorder that occurs simultaneously with another.

Compulsion: the drive to do something in a particular way, such as the need to straighten a room or complete a task.

Conservatorship: the legal right given to a person to be responsible for the assets and finances of a person deemed fully or partially incapable of providing these necessities for himself or herself.

Crisis plan: a document that outlines in specific detail the necessary strategies and steps that must be taken when a crisis occurs.

Data analysis: the process of thoroughly inspecting information related to challenging behaviors in order to draw out useful information and conclusions that may result in strategies to improve behavior.

De-escalation: the process of stopping a challenging behavior or crisis from intensifying and calming the situation.

Depression: a mood disorder in which feelings of sadness, anger, or frustration interfere with everyday life for an extended period of time.

Differential diagnosis: distinguishing between two or more diseases with similar symptoms to identify which is causing distress or challenging behavior.

Differential diagnosis: the identification of an additional mental health disorder distinct from a primary diagnosis.

Diagnostic: an event that causes an unplanned deviation from a situation.

Dual diagnosis: a condition that is caused by one or more diseases with similar symptoms to identify which is causing distress or challenging behavior.

Elopement: a situation in which an individual leaves a safe place, a caregiver, or supervised situation, either by 'bolting,' wandering or sneaking away.

Epilepsy: a brain disorder in which a person has repeated episodes of disturbed brain activity or "boltting," wandering or walking away.

Extinction: a response used to diminish or eliminate a mild behavior when it is not desired.

Extraversion: increasing or worsening rapidly.

Grief: a state in which a person does not move and does not respond to others.

Discipline: a process by which a person does not move and does not respond to others.

Data analysis: the process of thoroughly inspecting information related to challenging behaviors in order to draw out useful information and conclusions that may result in strategies to improve behavior.
Extinction burst: the short term response to extinction in which there is a sudden and temporary increase in the response's frequency, followed by an eventual decline.

Face blindness: an impairment in the recognition of faces.

Fecal digging: the process in which an individual puts his fingers into his rectum.

Fecal smearing: the process in which feces are spread on property or the individual himself.

Food allergies: an adverse immune response to a food protein (i.e. dairy products) that may cause rashes, gastrointestinal or respiratory distress.

Function: the purpose or desired result.

Functional Communication: the purpose or reason behind a specific behavior for an individual.

Functional Behavior Assessment (FBA): the process by which a school thoroughly examines a student's problem behavior using strategies such as close observation, questionnaires, active listening, previous experiences, etc.

Functional Communication: effective and appropriate communication that an individual uses across his daily environment.

Gastroenterologist: a professional specializing in disorders of the digestive system.

guardianship: the legal right given to a person to be responsible for the food, health care, housing, and other necessities of a person deemed fully or partially incapable of providing these necessities for himself or herself.

Hormones: chemical messengers that travel in an individual's bloodstream to tissues or organs slowly, over time, and affect many different processes including brain activity and behavior.

Immunologist: a physician specially trained to diagnose, treat and manage allergies, asthma, and other immune system disorders.

Incontinence: the (usually) involuntary passing of feces or urine, generally not into a toilet or diaper.

Informed consent: a process of communication between a patient and physician that results in the patient's authorization or agreement to undergo a specific medical intervention.

Intervention: a strategy or process put in place in order to improve or modify an individual's behavior.

Intervention with Disabilities Education Act (IDEA): a law ensuring services to children with disabilities.

Individuals with Disabilities Education Act (IDEA): a law ensuring services to children with disabilities.

Individuals with Disabilities Education Improvement Act (IDEIA): the 2004 reauthorization of the Individuals with Disabilities Education Act that ensures that in exchange for federal funding, states must provide a free appropriate public education (FAPE) to individuals with disabilities in the least restrictive environment (LRE).

Intrauterine: the (usually) involuntary passing of feces or urine, generally not into a toilet or diaper.

Intrauterine: the process by which a school thoroughly examines a student's problem behavior using strategies such as close observation, questionnaires, active listening, previous experiences, etc.

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Intolerance: the inability, unwillingness or refusal to endure something (i.e. specific foods)

Involuntary Commitment: a legal process in which an individual experiencing a mental health crisis is ordered into treatment against his or her will, including to a hospital

Lyme Disease: a bacterial infection spread through the bite of the blacklegged tick

Maladaptive behavior: a type of behavior that is often used to reduce anxiety, but the result does not provide adequate or appropriate adjustment to the environment or situation

Medicaid: a government program that provides healthcare coverage for low-income families and individuals

Medical Home: a team-based healthcare delivery model led by a physician that provides comprehensive and continuous care to patients

Medication: a government program that provides healthcare coverage for low-income families and individuals

Nutritionist: a professional specializing in diet and nutrition issues

Obsession: a repetitive thought or feeling dominated by a particular idea, image or desire, such as a person who only wants to talk about elevators

Obsessive Compulsive Disorder (OCD): an anxiety disorder in which people have unwanted and repeated thoughts, feelings, ideas or sensations (obsessions) that make them feel driven to do something (compulsions) who only want to talk about elevators

Ophthalmologist/Optometrist: a professional specializing in vision issues and eye care

Obsessive Compulsive Disorder (OCD): an anxiety disorder in which people have unwanted and repeated thoughts, feelings, ideas or sensations (obsessions) that make them feel driven to do something (compulsions)

Over correction: a punishment mechanism for challenging behavior that involves requiring an individual to engage in repetitive behavior to an excessive extent in an attempt to prevent the behavior from occurring again

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Pediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal Infections (PANDAS): a subset of children and adolescents who have Obsessive Compulsive Disorder (OCD) and/or tic disorders, and in whom symptoms worsen following infections such as strep throat and scarlet fever

Pediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal Infections (PANDAS): a subset of children and adolescents who have Obsessive Compulsive Disorder (OCD) and/or tic disorders, and in whom symptoms worsen following infections such as strep throat and scarlet fever

Opiates: drugs that cause drowsiness, sedation, and euphoria

Polypharmacy: the use of multiple medications by a patient and goes on to each discrimination of pictures and how to put them together in sentences and package them together in sentences to individual pictures. A collective home for a communication intervention(s) Picture Exchange Communication System (PECS): a unique augmentative/alternative communication intervention

Positive Behavior Supports (PBS): an approach to helping people improve their difficult behavior by understanding what is causing it and then developing strategies to increase positive behaviors

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Post-Traumatic Stress Disorder (PTSD): an anxiety disorder that can occur after witnessing or experiencing a traumatic event or threat to one’s safety or health

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Pica: an eating disorder that involves eating things that are not food (i.e. dirt, plastic)

Picture Exchange Communication System (PECS): a unique augmentative/alternative communication intervention

Place an eating disorder that involves eating things that are not food (i.e., dirt, plastic) when symptoms worsen following infections such as strep throat and scarlet fever

Positive Feedback: a punishment mechanism for challenging behavior that involves requiring an individual to engage in repetitive behavior to an excessive extent in an attempt to prevent the behavior from occurring again

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Prehabilitation: a process in which an individual experiences a mental health crisis is ordered into treatment against his or her will, including to a hospital

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Premise: the use of multiple medications by a patient

Prehabilitation: the use of multiple medications by a patient

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Psychiatric evaluation: a mental health examination by a psychiatrist or other mental health professional.

Psychologist: a professional with the training and clinical skills to help people learn to cope more effectively with life issues and mental health problems.

Psychosis: a loss of contact with reality that usually includes delusions and hallucinations.

Psychotropic: a medication or intervention that affects brain activity, behavior or perception.

Puberty: the process of physical changes that occur when a child's body matures into an adult.

Regional center: agencies throughout the state of California that serve individuals with developmental disabilities and their families.

Reinforcement strategies: methods used to promote or increase positive behavior by providing motivating reinforcers (i.e. praise, a favorite toy, a cookie).

Reinforce: to strengthen with additional material or support.

Resilience: an ability to recover from or adapt easily to change or a difficult situation.

Ritual: a repetitive behavior that a person appears to use in a systematic way in order to promote calm or reduce anxiety.

Rumination: the practice of (voluntarily or involuntarily) thinking about something that is painful or bothersome.
Sensory defensiveness: a tendency to react negatively or with alarm to sensory input which is generally considered harmless or non-irritating.

Sensory input: any source that creates sensation and activates one or more of the senses—vision, smell, sound, taste, and touch.

Sensory-seeking behavior: behaviors caused by a need for additional stimulation of certain senses or a way of maintaining attention or achieving a calmer state.

Sleep apnea: a usually chronic, common disorder in which an individual has one or more pauses in breathing or shallow breaths up to 30 or more times per hour during sleep, which can result in daytime sleepiness.

Stimulant: a medication prescribed for attention deficit hyperactivity disorder (ADHD) to help reduce impulsivity and hyperactivity.✴

Stimming: behaviors that help meet basic needs for food, clothing, and shelter.

Supplemental Security Income (SSI): a Federal income supplement program designed to help aged, blind, and disabled people who have little or no income, and provides cash to meet basic needs for food, clothing, and shelter.

Staring spells: occasions when an individual is in a trance staring into space, which can often signal seizure activity.

Sleeping pills: a stimulus other than a sensory stimulus or external cue that can be touched, such as a toy or piece of candy.

Special needs parent advocate: an advocate for parents of children with special needs who helps ensure that the child’s rights and needs are met in school and in the community.

Tourette’s Syndrome: a neurological disorder characterized by tics, or repetitive, stereotyped, involuntary movements and vocalizations.

Tracking scales: a document or other tool used to track information such as changes in an individual’s behaviors, side effects of medications, school performance, etc.

TRICARE: the health care program for Uniformed Service members, retirees, and their families worldwide.

Voice output technology: a technological device that helps people who are unable to use speech to express their behaviors, side effects of medications, school performance, etc.

Wake-out: an integrated, multi-agency, community-based planning process designed to build teams of needs and exchange information with other people.

Wraparound: an integrated, multi-agency, community-based planning process designed to build teams of providers, family members, and natural supports to help keep complex youth in their homes and communities.
Have more questions or need assistance?

Please contact the Autism Response Team for information, resources and tools.

TOLL FREE: 888-AUTISM2 (288-4762)
EN ESPANOL: 888-772-9050
TOLL FREE: 888-AUTISM2 (288-4762)

Email: FAMILYSERVICES@AUTISMSPEAKS.ORG
WWW.AUTISMSPEAKS.ORG

To learn more about Autism Speaks, please visit AutismSpeaks.org.

Autism Speaks is dedicated to promoting solutions, across the spectrum and throughout the life span, for the needs of individuals with autism and their families. We do this through advocacy and support; increasing understanding and acceptance of people with autism; and advancing research into causes and better interventions for autism spectrum disorder and related conditions.

Autism Speaks
Ten Key Interventions for ASD

1. Autism diet (e.g., broccoli, these sulforaphanes) probiotics, omega 3, probiotics, vitamin D3, sulforaphane, probiotics, CBD
2. Optimal evaluation and management of medical and neurological intolerance
3. Individual food sensitivities (e.g., casein, gluten)
4. Optimal demand on the individual with ASD
5. Behavioral Interventions / Stimulus control (Applied Behavior Analysis) ABA (with guidance from a BCBA [Board Certified Behavior Analyst])
6. Multi-sensory interventions (with Guidance from an Occupational Therapist)
7. Language and communication interventions (with Guidance from an Occupational Therapist)
8. Emotional and social Resilience Training (e.g., Secret Agent)
9. Supplements and herbal Remedies (e.g., N-acetylcysteine, Omega 3, probiotics, Vitamin D3, sulforaphane, probiotics, CBD)
10. Psychiatric medications (e.g., SSRI's, Stimulants for ADHD, SISRS for insomnia)
[www.semel.ucla.edu/peers]
[www.sss-institute.net]
[www.nidotherapy.com]
[www.nidotherapy.com]
[Behavioral/Neuropsychiatry]

Additional Treatments / Nutrients / Supplements
3, 4, 5, 6, 7, 8, 9
- Acupuncture
- Aromatherapy
- Bloodletting
- Cranial Osteopathy
- Dental treatment
- Diet (e.g., low in refined carbs, high in omega 3s, probiotics)
- Electroacupuncture
- Electrolytes
- Exercise
- Fish Oil
- Homeopathy
- Hydrotherapy
- Magnesium
- Meditation
- Music Therapy
- Neurofeedback
- Nutrition
- Osteopathy
- Pilates
- Qi Gong
- Reiki
- Tai Chi
- Yoga
- Zumba

Additional Treatments / Nutrients / Supplements
10
- Alpha Lipoic Acid
- Amino Acids
- B-Complex
- B-6, B-12, Folate
- Beta Carotene
- Blood Sugar Management
- Calcium
- Vitamin D
- Vitamin E
- Vitamin C
- Iron
- Zinc
- Copper
- Selenium
- Magnesium
- Omega 3
- Omega 6
- Omega 7
- Omega 9
- DHA
- EPA
- ALA
- EPA
- DHA
Suggested Reading:

3. Inspirational narratives of women with late diagnosis of ASD:
https://theatlantics.com/

[2] Currently, a vasopressin 4 receptor antagonist Baciocutan is in
watch-tables-2/checklist-autism/

[3] Vanderbilt Kennedy Center

Web Resources:
Harnessing the Seven Forces of Wellness, Wisdom, and Healing

by Abhilash Desai, MD (dr.abhilashdesai@khourdoom.com)

N: Nature: We are evolutionarily programmed to heal rapidly if we spend time in nature and wilderness on a regular basis.

C: Community: We are all part of a community and we can enhance our wellness actively influencing our body-wellness and our social wellness.

S: Spirituality: We are all interconnected and we need to engage in spiritual engagement on a routine basis to promote our healing and wellness.

M: Mindfulness: Practices that support and enhance living mindfully (aka with awareness and kindness) throughout the day may have remarkable healing properties.

A: Adaptive: I’ve heard from many clients that the most difficult part of making changes is the fear of failure. And yet, it’s the fear of failure that drives us towards success. The most successful people are not afraid of failure. They are afraid of not trying.

By my friend Sunil Khushialani MD to Remember the seven pillars:

H:

1. Health: 10,000 steps daily
2. Nutrition: 8 glasses of water daily
3. Exercise: 30 minutes of exercise daily
4. Sleep: 7-8 hours of sleep daily
5. Mindfulness: 10 minutes of meditation daily
6. Social: 2 social activities weekly
7. Spiritual: 1 spiritual activity weekly
<table>
<thead>
<tr>
<th>Team Members</th>
<th>Components</th>
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</thead>
<tbody>
<tr>
<td>Providers, PCPs, and other team members collaborate with primary ASD care management and social services.</td>
<td>- Occupational therapist, speech and language pathologist, psychologist, pediatric neurologist, child psychologist, pediatrician, child psychiatrists, developmental psychologists, and neuropsychologists.</td>
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<td>- Co-manage with primary ASD care providers.</td>
<td>- Nurse in PCP office (preference a Board Certified Behavior Analyst (BCBA).)</td>
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<td>- Comprehensive ASD care visit: ongoing healthcare after consultation.</td>
<td>Primary care provider (PCPs) (also may be the primary ASD care provider).</td>
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<td>- Ensures health needs are comprehensively meet: mental and physical health needs.</td>
<td>- Education and job training: individual with ASD.</td>
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<td>- Family and friends (including hired care staff).</td>
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</tbody>
</table>

Suggested Care Team Members for Autism Care Plan

Abhishek Desai, MD (abhishekd@gmail.com)
<table>
<thead>
<tr>
<th>Components</th>
<th>Topics</th>
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</thead>
<tbody>
<tr>
<td>Contact information (name, website, telephone number, address of each)</td>
<td>Care team</td>
</tr>
<tr>
<td>reschedule appointments</td>
<td>Wellness visits</td>
</tr>
<tr>
<td>time, date, and location of visits; telephone numbers / websites to call / go to schedule / schedule</td>
<td>Wellness and behavior management plan</td>
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<td>+</td>
<td>Parent STIPS (support, training, education, resources for community support, local treatment plan for ongoing physical health)</td>
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<tr>
<td>2.2</td>
<td>Chronic health conditions care plan</td>
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<tr>
<td>3</td>
<td>Psychiatric complications care plan</td>
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<tr>
<td></td>
<td>Nutritional care plan</td>
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<td>Long-term care plan</td>
<td>Support network</td>
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<td>plan to address education, supported work, job training, consultation for BCBAs, psychological mediations as needed</td>
<td>Plan to address behavioral emergencies such as serious self-injurious behaviors or physical aggression episodes (e.g., use of behavior restraint systems)</td>
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<td>outline nutritional supplements and other allergies</td>
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<td>BCBAs</td>
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