Applied Behavior Analysis

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Developed By: Medical Necessity Criteria Committee

I. Description

Applied Behavior Analysis (ABA) is a methodology that employs a variety of science-backed methods identified upon assessment of the environment to analyze how behaviors are maintained and how to intervene with evidence-based strategies for behavior change. Behavioral principles such as positive and negative reinforcement are employed through different methods of teaching which may include Positive Behavior Supports (PBS), Verbal Behavior (VB), Natural Environment Teaching (NET), and Discrete Trial Training (DTT). Research supports the use of ABA is the most effective approach to support the development of socially significant behaviors in children, adolescents, and adults diagnosed with Autism Spectrum Disorder (ASD).

ABA treatment goals include improving daily living skills, decreasing harmful behaviors, improving social functioning and play skills, improving communication skills, and developing skills that result in greater independence. Identifying goals that focus on social significance can help ensure that individuals are living as independently as possible. It is important for treatment to focus on how learned skills can be generalized and family involvement is crucial in this regard. Similarly, collaboration among professionals and educators is critical to ensure consistency in interventions across settings (Kelly and Tincani, 2013).

ABA interventions are commonly provided by individuals working under the supervision of Board Certified Behavior Analysts (BCBA) or Board Certified Assistant Behavior Analysts (BCaBA). BCBAs are independent practitioners who have a graduate-level certification in ABA. BCaBAs are practitioners who have an undergraduate-level certification in ABA. They provide ABA services under the supervision of a BCBA. Both BCBAs and BCaBAs have to meet eligibility requirements, pass their respective exams, and obtain ongoing continuing education. They are certified through The Behavior Analyst Certification Board (BACB). The BACB provides practice requirements, ethics codes, and standards of professional conduct in the practice of ABA. ABA practitioners must interact with the BACB regularly to maintain their certification.

Oregon has established a Behavior Analysis Regulatory Board to license Behavior Analysts and Assistant Behavior Analysts and register Behavior Analysis Interventionists.

Telehealth may be an effective and cost-effective tool in delivering parent education. There is evidence that telehealth can be an effective way to achieve positive outcomes and quicker results. The Behavior Analyst Certification Board and The Council of Autism Service Providers (CASP) support telehealth as a way to provide ABA services. CASP notes in the Practice Parameters for Telehealth-Implementation of Applied Behavior Analysis: Second Edition: "Given the benefits of telehealth, providers and researchers have employed this service delivery model for almost two decades in delivering ABA assessment and treatment to individuals with ASD and training caregivers in the evaluation and delivery of ABA services [42,62–67]. There is extensive scientific evidence for the efficacy of many ABA services delivered in-person [68,69,] and over 170 manuscripts documenting the efficacy of ABA services delivered via various telehealth service delivery models for children aged 19 months to adults [64,70,71]. Telehealth service delivery rapidly expanded during the COVID-19 pandemic, and high levels of satisfaction reported by patients and providers across all medical disciplines has led health care systems to permanently incorporate telehealth into their services delivery models, including ABA treatment [71–75]"

A comprehensive review of treatments for Autism Spectrum Disorders by the Oregon Health Resources Commission (HERC, 2008) found insufficient evidence to demonstrate the effectiveness of ABA services. An updated review in 2014 found:

Applied behavior analysis (ABA), including early intensive behavioral intervention (EIBI), is recommended for coverage for treatment of autism spectrum disorder (*strong recommendation*).

Rationale: This strength of recommendation was based on sufficient (moderate quality) evidence and expert input, including testimony on parent/caregiver values and preferences. The evidence does not lead to a direct determination of optimal intensity. Studies of EIBI ranged from 15-40 hours per week. There is no evidence that increasing intensity of therapy yields improved outcomes. Studies for these interventions had a duration from less than one year up to 3 years. (Health Evidence Review Commission, 2014, p. 18).

The 2014 HERC report drew heavily from an Agency for Healthcare Research and Quality (AHRQ) review which studied the treatments for children ages 2- 12 (Effective Healthcare Program, 2014). The 2014 AHRQ report found evidence for the effectiveness of ABA but did not show effectiveness of intensive ABA in children over the age of 7. Older children requiring ABA treatment may be more impaired and ABA may be most effective with these individuals by targeting specific needs rather than broad deficits.

The American Academy of Pediatrics (2007 and reaffirmed in December 2010) found that ABA was effective in producing "sustained gains in IQ, language, academic performance, and adaptive behavior as well as some measures of social behavior" (p. 1164). A review of twenty-six outcomes

studies found evidence of the effectiveness of ABA in preschool children and some evidence of the effectiveness of ABA in children up to 7 years of age at intake (Eikeseth, 2009). A review of individual-level data from 16 studies of young children found that high-intensity treatment was superior to low intensity (Elevik, et al, 2010). A randomized, controlled study of the Early Start Denver Model (2010) showed positive effects for children receiving two years of therapy beginning at age 18 to 30 months.

The BACB has issued guidelines for "Funders and Managers" (2014) and a set of clarifications (2019). The guidelines set forth a number of recommendations and standards. Among other recommendations, they find that more intensive treatment is generally more effective than less intensive treatment; that supervision should generally be provided at a rate of at least 2 hours for every 10 hours of direct treatment; that caregiver training is an important component of treatment; and that ***"all aspects of ABA interventions must be customized to the strengths, needs, preferences, and environmental circumstances of each individual client and their caregivers, and must be flexible to accommodate changes that occur over the course of treatment"*** (emphasis in the original)***.***

The Individuals with Disabilities Education Act (IDEA) requires states and school districts to provide early intervention, special education, and related services appropriate to the needs of children with disabilities including Autism Spectrum Disorder. This requirement specifically includes services for children from birth to age 3 (Part C) as well as for older children (Part B).

The following criteria are intended as a guide for establishing medical necessity for the requested level of care. They are not a substitute for clinical judgment and should be applied by appropriately trained clinicians considering the unique circumstances of each patient, including co-morbidities, safety, and supportiveness of the patient's environment, and the unique needs and vulnerabilities of children and adolescents.

II. Criteria: CWQI: BHC-0002

A. **Criteria for Authorization of Initial Assessment of ABA Services:**

Authorization of the initial assessment and development of the treatment plan for ABA services is indicated by **ALL** of the following:

1. Diagnosis of Autism Spectrum Disorder has been made or confirmed by a provider meeting **Any** of the following qualifications:
   a. Behavioral Pediatrician
   b. Child Psychiatrist
   c. Child Clinical Psychologist with training in Autism Spectrum Disorder
   d. Pediatric Neurologist

2. Patient shows clinically significant impairment consistent with the diagnosis of Autism Spectrum Disorder.

B. **Criteria for Initial Authorization of ABA Services:**

Authorization for initial ABA services upon completion of the initial assessment and treatment plan is indicated by **ALL** of the following:

1. The treatment plan includes ALL of the following elements:

    a. Developed by a Masters or Doctoral Level Behavior Analyst with certification and/or licensure appropriate to the state in which the Behavior Analyst practices.
    b. Face-to-face treatment with an appropriately registered, certified, or licensed interventionist or clinician
    c. Frequency and intensity of treatment: number of hours per week of direct services to the patient and family
    d. Planned interventions consistent with ABA techniques
    e. Assessment of the patient's strengths and weaknesses
    f. Description of how the patient's strengths and weaknesses are addressed in the individualized treatment plan
    g. Target behaviors and achievable goals in quantifiable terms including mastery criteria
    h. Achievable goals appropriate to the patient's symptoms, resources, and functioning.
    i. Parental Involvement: description of participation of family in patient's treatment including interventions being employed with family, family education, training, and plan for transferring effective interventions to the family.
    j. Promotes the family's ability to foster the child's development and independently manage symptoms.
    k. Appropriate schedule for supervision by a certified/licensed Behavior Analyst,
    l. Plan for reassessment and treatment plan modification

2. Patient shows clinically significant impairment consistent with the diagnosis of Autism Spectrum Disorder.
3. Parent training planned for a minimum of 1 hour per 5-10 hours of direct treatment.
    a. In some cases, parent training may be provided by observing technicians' work with the patient.
    b. Implementation of parent training may be delayed if it is necessary to achieve stabilization of severe behaviors first.
    c. When treatment is otherwise medically necessary and parents are unable to participate in the appropriate amount of training, treatment will not be denied solely on this basis.
4. Evidence of coordination of care with other service and educational providers including which providers are involved and frequency of contact.
5. Treatment is appropriate to the patient's age and individual clinical need.
6. Treatment is expected to produce clinically significant results including ANY of the following:
    a. Measurable improvement in functioning that would not be expected in the absence of treatment
    b. Prevention of regression which would be expected in the absence of treatment

7. Number of hours of ABA per week should be based on patient's specific needs and not general program structure as evidenced by **ALL** of the following:
    a. Treatment is provided at the lowest level of intensity appropriate to the patient's clinical needs and goals.
    b. Detailed descriptions of problems, goals, and interventions support the need for the requested intensity of treatment.
    c. Number of hours requested reflects actual number of hours intended to be provided.
8. Treatment plan takes into account the child's and family's ability to tolerate and make use of interventions. Treatment plan also takes into account the amount of treatment hours that the child and family are realistically able to participate in.
9. Functional analysis has been completed when clinically indicated.
10. For treatment in an educational setting, **ALL** of the following criteria must be met:
    a. Treatment goals and interventions target symptoms that appear in the specific context of the educational setting and cannot be adequately treated in another setting.
    b. Treatment interventions are expected to ameliorate the targeted symptoms resulting in clinically meaningful improvement in adaptive functioning.
    c. Clinical staff do not supplant the role of educational staff in providing appropriate educational supports, accommodations and interventions to the student.
    d. Treatment goals should not be educational in nature nor overlap IEP goals. If goals seem to be educational in nature, they should be clearly tied to how they will improve the child's daily functioning.
    e. The treatment plan includes a realistic plan for promoting the school's ability to independently manage the student's behaviors without ongoing support from clinical staff.
    f. Clinical staff regularly review clinical goals, interventions and outcomes with educational staff.

C. **<u>Criteria for Continued Authorization of ABA Services:</u>**

Continued authorization for ABA is indicated by **ALL** of the following:

1. The treatment plan continues to meet the standards established by BACB.
2. Parent(s) are actively involved in the patient's treatment and parent training, to assist in generalizing skills to the natural environment. Parent progress in implementing skills is documented. (Presence alone does not constitute active participation.)
3. Documentation describes coordination of care with other service and educational providers including which providers are involved and frequency of contact.
4. Parents are not yet able to independently provide effective interventions without the ongoing support of ABA providers.
5. The treatment plan includes a realistic plan for termination and promotes the patient's and family's ability to independently continue treatment gains.

Plus **1 or more** of the following:

6. Continued measurable improvements in symptoms and/or functioning.
7. Continued progress toward the ability to independently maintain treatment gains.
8. Treatment plan revision expected to resolve a lack of progress.

D. **Termination Criteria:**

Termination of continued authorization is indicated by **1 or more** of the following:

1. Patient has achieved a stable level of functioning and further treatment is not expected to produce significant improvement.
2. The patient's behaviors and symptoms are being exacerbated by treatment interventions.
3. Parents are not engaging appropriately in treatment.
4. Parents are able to independently provide effective interventions without the ongoing support of ABA providers.

III. Information Required with the Prior Authorization Request:

1. For initial assessment:
   i. Evidence of adequate diagnosis of Autism Spectrum Disorder by an appropriately licensed and trained clinician.
   ii. Description of symptoms and functional impairments related to ASD
2. For treatment:
   i. Items in (a) above and:
   ii. Assessment and treatment plan completed by Behavior Analyst

IV. Annual Review History

Review Date	Revisions	Effective Date
05/2013	Annual Review. Added table with review date, revisions, and effective date. Refined criteria for intensive ABA.	05/2013
05/2014	Annual Review. Added description of state mandates.	05/2014
10/2014	Update to reflect new HERC and AHRQ reports and Oregon and Washington regulatory changes.	10/2014
05/2015	Annual Review. Simplified reference to state mandates. Included additional literature. Clarified requirements regarding ABA in educational settings.	05/2015
07/2016	Annual Review. Added one continued treatment criterion and two discharge criteria.	07/2016
07/2017	Annual Review. Added telehealth. Added references. Added criteria related to parental involvement.	09/2017
07/2018	Annual Review.	09/2018

07/2019	Annual Review. Re-organized criteria. Modified guidelines regarding intensity of treatment. Added detail regarding treatment plan requirements.	09/2019
10/2020	Annual review. Added additional emphasis and reference related to coordination of care. Other minor wording changes.	11/2020
9/2021	Annual review. Added clarifications regarding parent training.	10/2021
10/2022	Annual review. No changes.	11/2022
10/2023	Annual review. No changes.	11/2023
10/2024	Annual review. Updated ABA definition. Expanded description of benefits/effectiveness of telehealth. Defined BCBA, BCaBA, and BACB. Added guidelines from The Council of Autism Service Providers – 3rd edition published 4/29/24 to References.	11/2024

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