



DEPARTMENT OF VERMONT HEALTH ACCESS APPLIED BEHAVIOR ANALYSIS
Clinical Practice Guidelines
May 1, 2019

CONTENTS

Introduction

- Purpose
- Considerations
- Autism Spectrum Disorders (ASD)
- Applied Behavior Analysis (ABA)

Policy

- Legislation
- Medicaid Rules and ABA Medical Policy

Qualified Providers

- ABA Provider Requirements
 - Board Certified Behavior Analyst (BCBA)
 - Board Certified Behavior Analyst – Doctorate (BCBA-D)
 - Board Certified Assistant Behavior Analyst (BCaBA)
 - Behavior Technicians (BT)

Treatment

- Focused ABA Treatment
- Comprehensive ABA Treatment
- Group
- Parent, Caregiver, and Family Training

Standards for Service Delivery

- Case load recommendations
- ABA Assessment
- ABA treatment plan requirements
- Examples of behavioral targets
- ABA treatment delivery settings
- Treatment duration
- Use of seclusion and restraint
- Parents, caregivers, and family members
- Supervision
- Coordination with other health/mental health providers
- Transition / Discharge
- Telemedicine

INTRODUCTION

Purpose

The *Vermont Applied Behavior Analysis Guidelines* were created to provide Vermont practitioners with a consolidated set of recommendations and best practice suggestions for the treatment of Applied Behavior Analysis (ABA) for individuals diagnosed with Autism Spectrum Disorder (ASD). Although literature has shown some effectiveness with the use of ABA based procedures to reduce problem behavior and to increase appropriate skills for individuals with other childhood developmental disorders, evidence-based research and clinical studies are incomplete. Given the lack of evidence-based research regarding the effectiveness of ABA for other childhood developmental disorders, this document will primarily focus on ABA treatment for individuals specifically diagnosed with ASD. The content of these *Guidelines* is based on scientific evidence, best practice guidelines from nationally recognized organizations, professional standards of care, and expert clinical opinions. This document is intended to supply ABA providers with a user-friendly guide to the application of ABA as an effective behavior health treatment procedure for individuals diagnosed with ASD.

Considerations

This document is meant exclusively as guidance for providers of ABA services and is intended to provide recommendations and best practice suggestions. A customized treatment plan is a defining feature of ABA as well as an integral component of successful treatment for those diagnosed with ASD and other neurodevelopmental disorders. Additional behavioral health treatment techniques often used in conjunction with ABA for the treatment of ASD are not addressed within this manual.

Autism Spectrum Disorders (ASD)

As defined in the Diagnostic and Statistical Manual (DSM-5) of the American Psychiatric Association, ASD is a neurodevelopmental disorder characterized by persistent impairment in reciprocal social communication and social interaction, and restricted, repetitive patterns of behavior, interests, or activities. These symptoms are present from early childhood and limit or impair everyday functioning. Manifestations of the disorder vary greatly depending on the severity of the autistic condition, developmental level, and chronological age; hence, the term spectrum. Recent reported frequencies for ASD in the United States have approached 1% of the population. Symptoms of ASD are typically recognized during the second year of life (12-24 months of age) but may be seen earlier than 12 months if developmental delays are severe or noted later than 24 months if symptoms are more subtle. Improved reliability of diagnosis can be influenced by the availability of standardized behavioral diagnostic instruments with good psychometric properties, including caregiver interviews, questionnaires and child observation measures (American Psychiatric Association, Diagnostic and Statistical Manual of Mental Health, 5th Edition).

Applied Behavior Analysis (ABA)

Applied behavior analysis (ABA) is a scientific approach for discovering environmental variables that reliably influence socially significant behavior and for developing a technology of behavior change that takes practice advantage of those discoveries (Applied Behavior Analysis; Cooper, Heron, Heward 2014). The ABA treatment process begins by evaluating an individual's past and current environment in relation to genetics and ongoing physiological variables. An individualized ABA treatment plan is created using observation, measurement, and functional analysis by identifying changes in environmental events through specialized assessment methods. ABA focuses on treating behavioral difficulties by changing the individual's environment rather than focusing on variables that are unlikely to change. Therefore, ABA evaluates antecedents, behaviors and consequences to change an individual's environment.

Policy

Legislation

[Act 158 \(8 V.S.A. § 4088i.\)](#) requires private and Medicaid insurance plans to cover evidence-based diagnosis and treatment of early childhood developmental disorders including applied behavioral analysis supervised by nationally board- certified behavior analysts, for children birth until the age of 21 years.

As defined in Act 158, “applied behavior analysis” means the design, implementation and evaluation of environmental modifications using behavioral stimuli and consequences to produce socially significant improvement in human behavior. The term includes direct observation, measurement, and functional analysis of the relationship between environment and behavior. ABA includes a wide variety of evidence-based strategies to impact behavior.

The act further indicates that "behavioral health treatment" means evidence-based counseling and treatment programs, including applied behavior analysis, that are necessary to develop skills and abilities for the maximum reduction of physical or mental disability and for restoration of an individual to his or her best functional level, or to ensure that an individual under the age of 21 achieves proper growth and development.

Please refer to: <http://www.leg.state.vt.us/docs/2012/Acts/ACT158.pdf>

Medicaid Rule/ABA Medical Policy

[7103 Medical Necessity](#)

[7102.2 Prior Authorization Determination](#)

[3.101 Telehealth](#)

[9.103 Supervised Billing](#)

Medicaid Rules:<http://humanservices.vermont.gov/on-line-rules>

DVHA Developmental Screening Guidelines: <http://dvha.vermont.gov/for-providers/developmental-screening-for-young-children>

Qualified Providers

ABA Provider Requirements (<http://bacb.com/credentials/>)

Within ABA treatment there are four levels of treatment providers: **Board Certified Behavior Analyst (BCBA)**; **Board Certified Behavior Analyst-Doctorate (BCBA-D)**; **Board Certified assistant Behavior Analyst (BCaBA)**; and **Behavior Technician (BT)**.

- **BCBA:** The BCBA designs and supervises behavior interventions and effectively develops and implements appropriate assessments and intervention methods for the use in varied situations and for a range of cases. The BCBA teaches others to carry out ethical and effective behavior analytic interventions based on published research and designs and delivers instruction in behavior analysis. BCBA's also supervise the work of others providing interventions of behavior analysis.
- **BCBA-D:** The BCBA-D is required to have the credentials of a BCBA along with a degree from a doctoral program accredited by the Association for Behavior Analysis International (at the time the degree was earned), or has earned a doctoral degree from an accredited university in which he or she conducted a behavior- analytic dissertation; and passed at least two behavior analytic courses as part of the doctoral program of study; and met all the BCBA coursework requirements prior to receiving the doctoral degree. A BCBA-D is certified through the BACB and must be free from sanctions or disciplinary actions on their

certification and/or license, as well as no Medicare/Medicaid sanctions or federal exclusions. This individual must be covered by professional liability insurance. A BCBA-D has the same responsibilities as a BCBA.

- **BCaBA:** The BCaBA can conduct descriptive behavioral assessments, interpret the results, and design ethical and effective behavior analytic interventions for members. The BCaBA may teach others to carry out interventions and supervise behavioral technicians once the BCaBA has demonstrated competency with the procedures involved under the direct supervision of a BCBA.
- **BT:** The BTs primary responsibility is for the direct implementation of skill-acquisition and behavior-reduction plans developed by the supervisor. BTs do not design intervention or assessment plans but may collect data. The supervisor of the BT is responsible for determining which tasks the BT may perform based on his/her training, experience, and competence. The BTs supervisor is ultimately responsible for the work performed by the BT. BTs should receive specific, formal training before providing treatment. One way to ensure such training is through the Registered Behavior Technician (RBTs) Credentialing process. Information regarding RBTs can be found on the Behavior Analyst Certification Board website:
https://www.bacb.com/wp-content/uploads/2017/09/ABA_Guidelines_for_ASD.pdf

Treatment

Focused ABA Treatment

Focused ABA treatment is appropriate for individuals with a limited number of key functional skills (e.g., establishing instruction-following, social communication skills, self-care skills, and safety skills) or have acute problem behaviors (e.g., self-injury, aggression, threats, pica, elopement, feeding disorders, stereotypic motor or vocal behavior, property destruction, noncompliance and disruptive behavior, or dysfunctional social behavior) in which treatment should be prioritized. Focused ABA treatment may involve increasing socially appropriate behavior such as increasing social initiations or reducing problem behavior such as aggression as primary targets. It is imperative to target increases in appropriate alternative behavior even when reducing problem behavior, because the absence of appropriate behavior is often the precursor to serious behavior disorders. When the focus of treatment involves increasing socially appropriate behavior, treatment may be delivered in either an individual or small-group format. Group participants should be developmentally similar. Individuals with ASD who display co-occurring severe destructive behaviors may require focused treatment be delivered in more intensive settings and may require higher staff to client ratios and close onsite direction from the Behavior Analyst. If requesting authorization for more than one staff person, criteria requires the member be exhibiting behaviors that pose risk to self, others, or the environment, that cannot be safely and effectively treated with one staff person (destructive behaviors e.g. aggression, self-injury, pica, or property destruction).

Comprehensive ABA Treatment

Comprehensive ABA treatment is appropriate for individuals who experience multiple affected developmental domains such as cognitive, communicative, social, emotional, and adaptive functioning. Treatment typically focuses on maladaptive behaviors that include noncompliance, tantrums, and stereotypy. An example of comprehensive treatment is early intensive behavioral intervention with a primary goal of closing the gap between the client's level of functioning and that of typically developing peers. This treatment model often involves 1:1 staffing and gradually includes small-group formats as appropriate. Comprehensive treatment may be appropriate for older individuals diagnosed with ASD, particularly if they engage in severe or dangerous behaviors across environments. Treatment is normally provided in structured therapy sessions, in which naturalistic methods are integrated. As progress is made, treatment settings should be altered to include larger community settings. Training family members and other caregivers to manage problem behavior independently and to interact with the individual with ASD in a therapeutic manner is a critical component of this treatment model.

Group

Research has shown that significant social behavior improvements can be made when a client participates in social skills groups that employ an ABA model. When the focus of treatment involves increasing socially appropriate behavior, treatment may be delivered in an individual or small-group format. When conducted in a small group, individuals with similar diagnoses and presentation may participate in the session. Social skills groups typically use behavioral and social learning strategies such as prompting, modeling, role-playing, reinforcement and corrective feedback. Groups provide efficient, immediate and natural opportunities for participants to practice newly learned skills with peers. Possible benefits of utilizing social skills groups for individuals diagnosed with ASD include increased observational learning, placing peers in closer proximity to one another, and promotion of generalization. Members of the behavior-analytic team may guide clients through the rehearsal and practice of behavioral targets with each other. As is the case for all treatments, programming for generalization of skills outside the session is critical.

Parent, Caregiver, and Family Training

Focused and Comprehensive ABA treatment models may include parent, caregiver, and family training. This training involves a systematic, individualized curriculum on the basics of ABA. Treatment plans often include objective and measurable goals for parents, caregivers, and family. Skills development and support are often a primary focus to allow parents, caregivers, and family to become proficient in the implementation of treatment protocols across various settings. Training involves modeling, demonstration, and practice of skills specific to a member's treatment plan. Supervision and coaching during implementation, problem-solving as issues arise, adapting strategies to new environments, and promoting generalization and maintenance of therapeutic change are all part of ongoing training. Targets for training include (but not limited to): integration of new skills into the home and community settings, treatment of co-occurring behavior disorders, reduction of self-injurious or aggressive behaviors, establishment of replacement behaviors, and adaptive skills training. Although parent, caregiver, and family training may be delivered as a stand-alone treatment, it is not recommended as the primary form of treatment. Members diagnosed with ASD often present with complex behavior problems and skill deficits that cannot be resolved exclusively with parent, caregiver, and family training.

Standards for Service Delivery

Caseload recommendations

BCBAs should carry a caseload that allows them to provide appropriate case supervision and to facilitate effective treatment delivery safely. Caseload size for the BCBA 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 (i.e. 2 hours of supervision/monitoring of direct service of the BT with the member by the BCBA for every 10 hours of direct service provided by the BT); location and modality of supervision and treatment (e.g., treatment facility versus home); and availability of support staff for the BCBA's (e.g., a BCaBA).

ABA Assessment:

ABA assessments are completed by a BCBA. The assessment should identify members strengths and weaknesses across domains as well as potential barriers to progress. The information obtained during the assessment is the basis for development of the individualized treatment plan. An assessment should utilize information gathered from multiple methods and multiple sources of information including, file review, interviews and rating scales, direct observation, and assessments from other professionals. File reviews may include review of prior assessments, such as

intellectual and achievement tests, developmental assessments, and evaluations of family functioning and needs. BCBA's should use interviews, rating scales and social validity measures to assess the perceptions of the member's skill deficit and behavioral excesses and how these deficits and excesses impact the member and the family. Direct observation by the BCBA should be used to help identify levels of functioning, develop and adapting of treatment protocols on an ongoing basis, and for evaluating the members response to treatment and progress towards meeting treatment goals. Observation should occur in a variety of environments, including naturally occurring settings as well as in structured interactions. Assessments from other professionals can be helpful in guiding treatment and assessing progress. Information obtained through all of the methods listed above should be incorporated into the development of treatment goals and interventions.

ABA treatment plan requirements:

ABA treatment plans are developed by BCBA's and should be based on completed ABA assessments. ABA treatment plans must be individualized and should include specific and measurable goals, objectives and outcomes. DVHA requires that a treatment plan is updated at a minimum of every six months or sooner if clinically appropriate. DVHA requires one of the following assessment tools a minimum of every 6 months; PEAK, VB-MAPP or ESDM and should be incorporated into the treatment plan goals. Other assessment tools may be used if clinically appropriate but may not be substituted. The BCBA is responsible for summarizing and analyzing data, evaluating member progress towards treatment goals, adjusting treatment protocols based on data, monitoring treatment integrity, training and consulting with caregivers and other professionals, evaluating risk management and crisis management, ensuring satisfactory implementation of treatment protocols, reporting progress towards treatment goals and developing and overseeing of a transition/discharge plan. Best practice states that this is done through *direct* and *indirect* supervision. *Direct supervision* activities include observing treatment implementation for potential program revisions, monitoring treatment integrity to ensure satisfactory implementation of prescribed protocols and directing staff and/or caregivers in the implementation of new or revised treatment protocols with member present (*coaching*). *Indirect supervision* activities include developing individualized treatment goals, protocols, and data collection systems, summarizing and analyzing data, evaluating members progress towards goals and adjusting interventions based on data. Indirect supervision activities also include coordination of care with other professionals and reporting progress toward treatment goals and interventions in place. Additionally, member progress should be reviewed with staff to refine treatment protocols. The BCBA will meet with staff and caregivers to discuss how to implement new or revised treatment protocols without the member present.

Treatment plans should consider:

- Evidence of parent/guardian and member's involvement in the development of the plan
- Parent/guardian and caregiver training, support and participation.
- Development of member's individualized goals that consider the specific member's age; adaptive functioning; and intellectual functioning.
- Goals should be prioritized based on implications for the member's health and well-being, the impact on member, family and community safety, and contribution to functional independence.
- Service setting and hours of treatment.
- Measurable objectives based on clinical observation and assessment of outcome measures.
- Behavior or deficit to increase or decrease.
- Methods to be used.
- Goals of the family/guardian(s).
- Target date for introduction of goal and attainment of goal(s).
- Care coordination which includes the member's parent(s)/guardian(s), caregivers, school, mental health providers, medical providers, and any applicable parties.
- Interventions emphasizing generalization of skills and focus on the development of spontaneous social communication, adaptive skills, and appropriate behaviors.

Examples of behavioral targets:

The ABA treatment plan should specify the behavioral targets that are to be addressed. Behavioral targets should be individualized and measurable with clear goals, objectives, and anticipated outcomes. The following are behavioral targets that are often identified as needing assistance.

- Generalizing skills acquired in treatment settings into the natural environments (home and community).
- Reducing or replacing self-injurious or aggressive behaviors.
- Training in functional communication.
- Participating in routines that reinforce physical and emotional health.
- Developing daily living skills.
- Reducing ritualistic or preservative behaviors.

Treatment delivery setting:

ABA strives to promote generalization of therapeutic benefits in a variety of settings. Treatment can happen in homes, institutions, group homes, hospitals and business offices. When possible, members under the age of three should receive some treatment in their home environments. ABA treatment plans should specify where delivery of service will happen. Treatment plans should incorporate service delivery into the member's home in addition to natural environments (i.e. the community) where the skills are intended to be utilized.

Treatment duration:

Treatment duration is based on an evaluation of the members' response to treatment. DVHA requires that a treatment plan be updated at a minimum of every 6 months or sooner if clinically appropriate. The plan should include an evaluation by the provider that evaluates the progress made, appropriateness of goals, the continued need for treatment, and medical necessity. The following should be considered when determining treatment duration:

- The member continues to achieve treatment goals.
- The member continues to meet the diagnostic criteria for ASD (as measured by appropriate standardized protocols).
- The member continues to demonstrate progress towards goals over successive authorization periods. If progress towards treatment goals is not being demonstrated, there must be evidence that the treatment plan is being adjusted. Progress is defined as: Change that is durable over time and is demonstrated outside of treatment sessions across the member's natural environments which include home, school and community settings.
- Treatment does not appear to be negatively impacting the member or causing symptoms to become persistently worse.
- The member receiving services demonstrates the ability to maintain long-term gains from the proposed plan of treatment.
- The parent(s)/caretaker(s) are interested in continuing services.
- The parent(s)/caretaker(s) and the provider are in agreement regarding treatment planning and delivery.

Use of seclusion and restraint:

According to The Association for Behavior Analysis International (ABAI) website (<https://www.abainternational.org/about-us/policies-and-positions/restraint-and-seclusion,-2010.aspx>) ABAI and its members “strongly oppose the inappropriate or unnecessary use of seclusion, restraint, or other intrusive interventions. Although many persons with severe behavior problems can be effectively treated without the use of any restrictive interventions, restraint may be necessary on some rare occasions with meticulous clinical oversight and controls. In addition, a carefully planned and monitored use of time-out from reinforcement can be acceptable under restricted circumstances. Seclusion is sometimes necessary or needed, but behavior analysts would support only the most highly monitored and ethical practices associated with such use.” It further states, “This Position Statement on Restraint and Seclusion summarizes critical guiding principles. With a strong adherence to professional judgment and best practice, it also describes the conditions under which seclusion and restraint may be necessary and outlines proper strategy to implement these procedures appropriately and safely. This statement is consistent with ABAI’s 1989 Position Statement on the Right to Effective Behavioral Treatment, which asserts numerous rights, including access to the most effective treatments available, while emphasizing extensive procedural safeguards.”

The Association of Professional Behavior Analysts (APBA), “Position Statement on the Use of Restraint and Seclusion as Interventions for Dangerous and Destructive Behaviors: Supporting Research and Practice Guidelines”, discusses the use of restraint and seclusion as a means of intervention for individuals who display self-injurious behavior (SIB). Research has demonstrated that individuals with the most severe behavior problems can be helped with interventions developed by the discipline of applied behavior analysis (ABA). The APBA’s “The Use of Restraint and Seclusion as Intervention for Dangerous and Destructive Behaviors” position statement reads, “Some individuals diagnosed with developmental disabilities and mental health disorders exhibit severe and dangerous problem behaviors that can pose significant risks to their own safety and health and the safety and health of people around them. Examples include self-injurious behavior and physical aggression towards others, which can result in severe injuries, even death. Research and practice in applied behavior analysis (ABA) over the past five decades have produced safe, humane, positive, and effective methods for preventing or decreasing the occurrence of such behaviors. When those methods are implemented correctly as part of a professionally designed and comprehensive intervention plan, they have been shown to result in dramatic improvements in severe problem behavior as well as the quality of individuals’ lives”. Please refer to the following websites for more information: <https://drive.google.com/file/d/0B3CGK1GZRaf4bW5UWVlyUHFxekhwMHJkUmIBOC1xQ2dta2xr/view?pref=2&pli=1> and <https://drive.google.com/file/d/0B3CGK1GZRaf4dDNzN2EwZGd0NGNjX1kyYXNpZHFTUVNHeWZB/view?pref=2&pli=1>

DVHA’s stance on the use of restraint and seclusion is in alignment with ABAI’s statement above. All lesser restrictive interventions should be utilized first. Restraint and/or seclusion should be used only as a last resort. Clinical judgment and best practice need to be highly regarded in making the decision to utilize restraint and/or seclusion.

Parents, caregivers and family members:

ABA treatment plans should include parents, caregivers, and family training that involves receiving direct and indirect coaching, and with the emphasis on developing skills and support. When reviewing a new protocol, the child should not be present. Guidance for determining the need and adjustment of the natural environments (home and community) is also provided. Training should be individualized and customized and may include modeling, skill demonstration, educational presentations, coaching, and support for problem solving and strategy implementation. ABA treatment plans should clearly identify how the parents, caregivers, and family will be trained in the skills necessary to support their child in meeting treatment goals. It is recommended that training occur weekly, to keep the parents, caretakers, and family current on interventions and treatment approaches.

Supervision:

ABA treatment requires high levels of case supervision to ensure effective outcomes because of the individualized nature of treatment, the reliance on frequent analysis of member data, and the need for adjustments to the

treatment plans. Supervision should include both *direct* and *indirect* activities as they are critical to producing best treatment outcomes concurrently with the delivery of direct treatment to the member. *Direct supervision* includes directly observing BT utilizing interventions with member, monitoring treatment integrity to ensure the programs are implemented with fidelity and guiding staff and/or parent(s)/caregiver(s) in the implementation of treatment protocols. *Indirect supervision* includes developing individualized programming and data collection systems, summarizing and analyzing data, evaluating member progress toward goals, adjusting treatment protocols, coordinating with related service providers, crisis intervention, reporting progress, developing and overseeing transition/discharge plans. Indirect supervision also occurs when reviewing member progress with staff to refine individualized programs/protocols and reviewing and directing staff and/or caregivers in the implementation of a new or revised treatment protocol (without the member present).

Coordination with other health/mental health providers:

ABA providers should consult and coordinate care with other health/mental health providers to ensure the member's progress. Coordination among the health/mental health providers involved in the member's treatment increases the probability that the member will achieve his/her treatment goals. ABA treatment plans should identify treatment providers involved, specify existing services, and outline a strategy for continued communication and coordination of future services to be provided. It is recommended that collaboration between related service providers occur monthly (or more frequently if needed).

Transition/discharge:

Transition and discharge planning from ABA treatment should include specific rationale for the termination of services. The plan should include recommendations for follow up services for the member and the family. Discharge planning from ABA treatment should be gradual and initiated three months prior to discharge to best prepare the member and his/her care providers/family. Transition and discharge planning from ABA services should begin when at least one of the following occurs:

- The member has achieved treatment goals,
- The member no longer meets diagnostic criteria for ASD (as measured by appropriate standardized protocols),
- The member has not demonstrated progress toward goals following modification to the treatment plan over successive authorization periods. Progress, for this document, is defined as: a change in behavior that is durable over time and exists outside of treatment sessions. The changes are noticed in the member's residence, school, and community settings,
- Treatment appears to be negatively impacting the member and is causing symptoms to become persistently worse, or
- The member demonstrates an inability to maintain long-term gains from the treatment provided.

Telemedicine:

Use of telemedicine must be clinically appropriate. Please see the Telehealth Health Care Administrative Rule found at: <http://humanservices.vermont.gov/on-line-rules/health-care-administrative-rules-hcar/3.101-telehealth-rule-adopted-rule.pdf>