

**Washington State Health Care Authority, HTA Program
Key Questions and Background
ABA Therapy for Autism Spectrum Disorder**

Introduction

HTA has selected ABA Therapy for Autism Spectrum Disorder to undergo a health technology assessment where an independent vendor will systematically review the evidence available on the safety, efficacy, and cost-effectiveness. HTA posted the topic and gathered public input on all available evidence. HTA published the Draft Key Questions to gather input about the key questions and any additional evidence to be considered in the evidence review, and will review the public comments submitted and finalize the key questions. Key questions guide the development of the draft evidence report.

In this case, a federal research agency, AHRQ, also selected this topic. AHRQ previously posted for public comment its key questions and has just released a draft report. HTA strives to make economical use of state resources and to not duplicate other systematic reviews where current reports meet our statutory mandate and are timely.

Therefore, HTA requested comments on the draft key questions that were posed in the AHRQ report, and comments on whether any additional questions would be needed to meet HTA's specific purposes. Regardless of outcome, HTA strongly encouraged stakeholders interested in this topic to also participate in the AHRQ review and comment process. The AHRQ comment form on the draft report was open until August 6th and could be accessed at:

<http://www.effectivehealthcare.ahrq.gov/index.cfm/research-available-for-comment/comment-draft-reports/?pageaction=displayDraftCommentForm&topicid=106&productID=478>

Proposed Key Questions *(As specified in AHRQ report)*

Source:

<http://www.effectivehealthcare.ahrq.gov/ehc/products/106/366/Therapies%20for%20Autism%20Spectrum%20Disorder%20%282-9-2010%29.pdf>

KQ1: Among children ages 2-12 with ASD, what are the short and long-term effects of available behavioral, educational, family, medical, allied health, or CAM treatment approaches? Specifically,

KQ1a: What are the effects on core symptoms (e.g. social deficits, communication deficits and repetitive behaviors), in the short term (≤ 6 months)?

KQ1b: What are the effects on commonly associated symptoms (e.g. motor, sensory, medical, mood/anxiety, irritability, and hyperactivity) in the short term (≤ 6 months)?

KQ1c: What are the longer-term effects (> 6 mos) on core symptoms (e.g. social deficits, communication deficits and repetitive behaviors)?

KQ1d: What are the longer-term effects (> 6 mos) on commonly associated symptoms (e.g. motor, sensory, medical, mood/anxiety, irritability, and hyperactivity)?

KQ2: Among children ages 2-12, what are the modifiers of outcome for different treatments or approaches?

KQ2a: Is the effectiveness of the therapies reviewed affected by the frequency, duration, and intensity of the intervention?

KQ2b: Is the effectiveness of the therapies reviewed affected by the training and/or experience of the individual providing the therapy?

KQ2c: What characteristics, if any, of the child modify the effectiveness of the therapies reviewed?

KQ2d: What characteristics, if any, of the family modify the effectiveness of the therapies reviewed?

KQ3: Are there any identifiable changes early in the treatment phase that predict treatment outcomes?

KQ4: What is the evidence that effects measured at the end of the treatment phase predict long term functional outcomes?

KQ5: What is the evidence that specific intervention effects measured in the treatment context generalize to other contexts (e.g., people, places, materials)?

KQ6: What evidence supports specific components of treatment as driving outcomes, either within a single treatment or across treatments?

KQ7: What evidence supports the use of a specific treatment approach in children under the age of 2 who are at high risk of developing autism based upon behavioral, medical, or genetic risk factors?

PICOTS (From AHRQ Report)

Population. Children ages 2 – 12 who are diagnosed with an autism spectrum disorder (ASD) and children under age 2 at risk for diagnosis of an ASD

Interventions. Behavioral interventions, including variations of applied behavior analysis as well as developmentally-based models such as DIR/Floortime, among others; educational interventions, including the TEACCH program; allied health interventions, including occupational, physical, and speech therapy; medical interventions, including prescription and non-prescription treatments; and CAM approaches, including music therapy and nutritional therapies intended to modify the core symptoms of ASD

Comparators. No treatment, placebo, or comparative interventions from intervention list or combinations of interventions.

Outcomes and adverse events.

Primary outcomes.

- Changes in short-term targeted outcome areas, including social skills/interaction, language and communication, repetitive and other maladaptive behaviors, psychological distress, adaptive skills development and academic skills development

Technology Background

Technology: Autism Spectrum Disorders (ASD) are common neurodevelopmental disorders, with an estimated prevalence of one in 110 children in the United States. Individuals with ASD have significant impairments in social interaction, behavior, and communication. Children with ASD may also have impaired cognitive skills and sensory perception. The expression and severity of symptoms of ASD differ widely, and treatments include a range of behavioral, psychosocial, educational, medical, and complementary approaches that vary by a child's age and developmental status. The goals of treatment for ASD focus on improving core deficits in communication, social interactions, or restricted behaviors, with the idea that changing these fundamental deficits may help children develop greater functional skills and independence. Individual goals for treatment will vary for different children, and may include combinations of medical and related therapies, behavioral therapies, educational therapies, allied health therapies and complementary and alternative medicine (CAM) therapies. Important questions remain about the efficacy and safety of therapies, including Applied Behavioral Therapy, which groups of individuals with ASD may benefit, and whether a combination of medical and other therapies is necessary.