

## Summary of the National Standards Project Results

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The National Autism Center completed and released the results from the National Standards Project, a two-part comprehensive review of the literature to determine what treatments work for addressing the needs of youth with autism spectrum disorders. The full reports, both the 2009 report (Phase 1) and the 2015 report (Phase 2) are on line at the National Autism Center's website ([www.nationalautismcenter.org](http://www.nationalautismcenter.org)), and they are summarized here.

This study was huge and completed in two parts, the first completed in 2009 and the second part completed in 2015. Over 1300 research studies were reviewed, covering toddlers through adults diagnosed with autism spectrum disorder, autism, Asperger's Disorder, and Pervasive Developmental Disorder-Not Otherwise Specified. The Project identified 14 treatments as "established", meaning that ample research exists to show that these treatments are effective for youth with autism spectrum disorders. The Project also identified 18 "emerging treatments", meaning that there is some support for their effectiveness but not enough to make these treatments ones that should be recommended. And, 13 treatments were identified as "unestablished", meaning that these treatments have no support for their effectiveness and should not be recommended.

Parents should look to these findings when evaluating possible treatments for their child with an autism spectrum disorder. Too many centers and individuals are willing to capitalize on the desperation of parents and will make claims that research simply does not support.

### "Established Treatments"

These treatments have many studies that show their effectiveness with youth with autism spectrum disorders. Parents should use treatment programs and professionals that use these methods, as they have the best support for helping youth with autism spectrum disorders.

A common theme emerges from these 'established' treatments; teaching the child with autism how to interact socially and to alter their behavior.

#### *Treatments to alter behaviors:*

- Antecedent package; modification of events that precede both positive and negative behaviors (e.g. Applied Behavior Analysis or ABA)
- Behavioral interventions; teaching of alternative behaviors (e.g., ABA, discrete trial training, differential reinforcement, sleep/toilet training, contingency management)
- Comprehensive behavioral treatment (e.g., ABA)
- Language training (e.g., improving verbal communication)
- Naturalistic teaching strategies (e.g., milieu teaching, focused stimulation)
- Parent training (e.g., teaching parents how to implement strategies)
- Pivotal response treatment (e.g., targeting behaviors that are critical to motivation)
- Schedules (e.g., visual depiction of tasks/activities to be completed)
- Self-management (e.g., teaching child to regulate on own actions by noticing their own behavior)
- Story-based intervention (e.g., social stories)

#### *Treatments to teach social interactional skills:*

- Modeling (e.g., demonstration of the target behavior followed by the youth imitating the behavior)
- Peer training package (e.g., training peers to initiate and respond to the youth during social interaction)
- Scripting (e.g., developing a specific verbal/written script for a particular skill or situation)
- Social skills training (e.g., teaching specific social behaviors)

#### **“Emerging Treatments”**

These treatments have some studies that have shown effectiveness but there are not a high number of studies for any of these treatments. Parents should consider programs or professional using these methods as an adjunct to those treatments listed under ‘established treatments’.

The National Standards Project identified 18 treatments as ‘emerging’, and many of these have similarities between them. To help the reader better understand these ‘emerging’ treatments, they are listed in groups under certain headings:

#### *Treatments to improve language and communication:*

- Augmentative and alternative communication devices (e.g., use of pictures/pictographs/symbols, computers)
- Functional Communication training
- Language training (e.g., production of language and also understanding language)
- Picture Exchange Communication Systems (PECS)
- Sign language

#### *Treatments to improve social awareness and social interaction:*

- Developmental relationship-based treatment (e.g., Denver Model, RDI)
- Imitation-based intervention (e.g., adult imitates the child’s actions)
- Initiation training (e.g., teaching child how to initiate peer interactions)
- Social communication intervention (e.g., building social language skills)
- Theory of mind training (e.g., learning how others think)\

#### *Treatments to reduce anxiety and/or behavioral problems:*

- Cognitive-behavioral interventions (e.g., changing negatively-focused thoughts to positively-focused thoughts)
- Exposure (e.g., learning to deal with anxiety-provoking situations)
- Exercise
- Massage therapy
- Reduction (e.g., reducing problem behaviors through behavior chain interruption or mildly noxious stimuli)
- Scripting (e.g., practicing what to say/do)

#### *Other treatments:*

- Music therapy
- Structured teaching (i.e., TEACCH model)

## “Unestablished Treatments”

These treatments have little or no evidence of effectiveness, either because there has not been sufficient research to support these interventions or because the research evidence does not support effectiveness with children who have an autism spectrum disorder. Parents should **not** use these programs, given the lack of support for their effectiveness.

- Animal-assisted therapy (e.g., hippotherapy, dogs)
- Auditory Integration Training
- Concept mapping
- DIR/Floor time
- Gluten-free and/or casein-free diet
- Facilitated Communication
- Movement-based intervention
- Sensory integration
- Shock therapy
- Social-behavioral learning strategy (e.g., SODA)
- Social Cognition/Social Thinking Intervention program