Evidence for Effectiveness of ABA as a Treatment for Autism

Introduction

This document summarizes medical and scientific evidence for effectiveness of applied behavior analysis (ABA) as a treatment for autism spectrum disorder. It includes:

- Peer-reviewed literature
- Findings, studies or research conducted by or under the auspices of a federal government agency or a nationally recognized federal research institute
- Clinical practice guidelines that meet Institute of Medicine criteria
- Reports by other professional and governmental associations
- Expert analysis by autism researchers
- Legal rulings by courts of law
- Policy Decisions by Governmental Agencies

Documents listed in the first three categories (peer-reviewed literature, findings from federal government agencies or research institutes, and clinical practice guidelines meeting Institute of Medicine criteria) meet the requirements from Oregon Administrative Rules (OAR) 836-053-1325 for medical, scientific, and cost effectiveness evidence for use by Independent Review Organizations in External Review decisions to determine whether a treatment is medically necessary, or is an experimental / investigational treatment.

Peer-reviewed literature

Article:	Content / Findings:
Dawson G., "Behavioral interventions in children and adolescents with autism spectrum disorder: a review of recent findings." <i>Current Opinion in Pediatrics</i> , 2011; Vol 23: pp 616–620	 Reviews and summarizes 27 studies published in peer-reviewed literature since January, 2010 on behavioral interventions for children and adolescents with autism spectrum disorder (ASD) Key findings: behavioral interventions are effective for improving language, cognitive abilities, adaptive behavior, and social skills, and reducing anxiety and aggression.
McEachin J, et al. "Long-Term Outcome for Children With Autism Who Receive Early Intensive Behavioral Treatment." <i>American</i> <i>Journal on Mental Retardation</i> , 1993; Vol. 97, No. 4: pp 359-372	 Follow-up to 1987 Lovaas study (below), assessing long-term progress of the same 38 children at a mean age of 11.5 years Results showed that the experimental group (who received intensive behavioral intervention) preserved its' gains over the control group

Article:	Content / Findings:
Lovaas O. "Behavioral Treatment and Normal Educational and Intellectual Functioning in Young Autistic Children." <i>Journal of Consulting and Clinical Psychology</i> , 1987; Vol. 55, No. 1: pp3-9	 Examines the impact of intensive behavioral intervention (Applied Behavior Analysis, or ABA) Compared an experimental group of 19 children who received 40 hours of ABA per week for two years to comparison groups 9 out of 19 children in the ABA group attained average cognitive functioning, and were able to perform in school with minimal supports, compared to only 1 of 40 children in the control group
Cohen, H., Amerine-Dickens, M. and Smith, T. "Early Intensive Behavioral Treatment: Replication of the UCLA Model in a Community Setting." Journal of Developmental Pediatrics, 2006; Vol. 27, No. 2: pp145-155	 Replicated 1987 Lovaas study (above). Compared 21 children who received 35 to 40 hours of ABA per week to a control group of 21 age- and IQ-matched children in public school special education classes ABA group obtained significantly higher IQ and adaptive behavior scores than control group 6 of 21 ABA children were fully included in regular education without assistance at year 3, and 11 others were included with support (for 17 out of 21 placed in regular education), compared to only 1 of 21 comparison children in regular education
Dawson, G. et al, "Randomized, Controlled Trial of an Intervention for Toddlers With Autism: The Early Start Denver Model." Pediatrics, 2010; Vol. 125, No. 1: pp17-23 http://pediatrics.aappublications.org/content/125/1/e17.full.pdf+html	 Randomized controlled trial of Early Start Denver Model (ESDM), a developmental behavioral intervention based on developmental and ABA principles 48 children with autism between 18 and 30 months of age were assigned to either intensive ESDM by trained therapists, or referred to community providers Compared with children who received community intervention, children who received ESDM showed significant improvements in IQ, adaptive behavior, and autism diagnosis
Maglione, M.A. et al, "Nonmedical Interventions for Children With ASD: Recommended Guidelines and Further Research Needs," <i>Pediatrics</i> , 2012;Vol. 130;S169 http://pediatrics.aappublications.org/content/130/Supplement_2/S169.full.html	 Developed consensus guidelines on nonmedical interventions that address cognitive function and core deficits in children with autism Guidelines were developed by a Technical Expert Panel (TEP) based on a systematic overview of research findings "The TEP agreed that children with ASD should have access to at least 25 hours per week of comprehensive intervention to address social communication, language, play skills, and maladaptive behavior. They agreed that applied behavioral analysis have shown efficacy."

Article:	Content / Findings:
Landa. R. J., and Kalb, L.G., "Long-term Outcomes of Toddlers With Autism Spectrum Disorder Exposes to Short-term Intervention," <i>Pediatrics</i> 2012;Vol. 130;S186 http://pediatrics.aappublications.org/content/130/Supplement_2/S186.full.html	 Forty-eight patients with autism received a 6-month applied behavior analysis -based intervention beginning at age 2 Cognitive (IQ) and communication ability, as well as severity of autism symptoms, were assessed by using standardized measures Significant gains in IQ and Vineland Communication domain standard scores as well as a reduction in ASD severity were achieved
Fein, D., et al, "Optimal outcome in individuals with a history of autism," Journal of Child Psychology and Psychiatry 54:2 (2013), pp 195–205 http://onlinelibrary.wiley.com/doi/10.1111/jcpp.12037/pdf	 Analyzes the cases of 34 individuals who had a clear documented history of autism, yet no longer met criteria for autism as per the ADOS and clinical judgment The results substantiate the possibility of "optimal outcome" from autism spectrum disorders and demonstrate an overall level of functioning within normal limits for this group The authors noted that parents who "advocate vigorously for the best interventions" "may maximize the chance" for an "optimal outcome"

Findings, studies or research conducted by or under the auspices of a federal government agency or a nationally recognized federal research institute

Agency:	Report:	Finding:	
Federal Agency for	Comparative Effectiveness	"Evidence supports early intensive	
Healthcare Research	Review # 26: Therapies for	behavioral and developmental	
and Quality	Children With Autism	intervention, including the University of	
	Spectrum Disorders, Agency	California, Los Angeles (UCLA)/Lovaas	
	for Healthcare Research and	model and Early Start Denver Model	
	Quality, AHRQ Publication	(ESDM) for improving cognitive	
	No. 11-EHC029-EF, April 2011	performance, language skills, and adaptive	
	http://www.effectivehealthc	behavior in some groups of children." (p. vi)	
	are.ahrq.gov/ehc/products/1	"Within this category, studies of	
	06/656/CER26 Autism Repo	UCLA/Lovaas-based interventions report	
	rt 04-14-2011.pdf	greater improvements in cognitive	
		performance, language skills, and adaptive	
		behavior skills than broadly defined eclectic	
		treatments available in the community.	
		However, strength of evidence is currently	
		low." (page ES-7)	
National Institute of	Autism Spectrum Disorders	"Among the many methods available for	
Mental Health	Pervasive Developmental	treatment and education of people with	
	<u>Disorders</u> , NIH Publication	autism, applied behavior analysis (ABA) has	
	No. 08-5511, 2008	become widely accepted as an effective	
	http://www.nimh.nih.gov/he	treatment." (p. 19)	
	alth/publications/autism/nim		
	hautismspectrum.pdf		
National Academy of	Educating Children with	 "Forty years of single-subject-design 	
Sciences	Autism, Committee on	research testifies to the efficacy of time-	
	Educational Interventions for	limited, focused applied behavior analysis	
	Children with Autism,	methods in reducing or eliminating specific	
	National Research Council,	problem behaviors and in teaching new	
	ISBN: 0-309-51278-6, 2001	skills to children and adults with autism or	
		other developmental disorders." (p.120)	
	/10017.html		
Center for Medicaid	IMPAQ International, LLC,	Identified 15 ABA, Developmental, and	
and Medicare	<u>Final Report on</u>	other behavioral interventions as	
Services	Environmental Scan, Autism	"Established"	
	Spectrum Disorders (ASDs)		
	<u>Services Project</u> , March 9,		
	2010		
	http://www.impaqint.com/fil		
	es/4-content/1-6-		
	publications/1-6-2-project-		
	reports/finalasdreport.pdf		

Clinical practice guidelines that meet Institute of Medicine criteria

Organization:	Clinical Practice Guideline:	Finding:	
American Academy	Scott M. Myers, MD,	"The effectiveness of <u>ABA</u> -based	
of Pediatrics	Management of Children	intervention in ASDs has been well	
	With Autism Spectrum	documented through 5 decades of research	
	<u>Disorders</u> , Pediatrics, 2007	by using single-subject methodology and in	
	http://pediatrics.aappublicati	controlled studies of comprehensive early	
	ons.org/cgi/reprint/120/5/11	intensive behavioral intervention programs	
	<u>62</u>	in university and community settings.	
		Children who receive early intensive	
		behavioral treatment have been shown to	
		make substantial, sustained gains in IQ,	
		language, academic performance, and	
		adaptive behavior as well as some	
		measures of social behavior, and their	
		outcomes have been significantly better	
		than those of children in control groups."	
		[Emphasis added]	
American	Autism Treatment Options,	"Medication and <u>behavioral interventions</u>	
Psychological	American Psychological	can help children cope with autism. Since	
Association	Association website	medications on their own rarely improve	
	http://www.apa.org/topics/a	behavior, behavioral interventions are	
	utism/treatment.aspx	<u>crucial</u> ." [Emphasis added]	
New York State	Clinical Practice Guideline	"It is recommended that principles of	
Department of	Report of the Guideline	applied behavior analysis (ABA) and	
Health	Recommendations Autism /	behavior intervention strategies be	
	Pervasive Developmental	included as an important element of any	
	Disorders Assessment and	intervention program for young children	
	Intervention for Young	with autism. [A]"	
	Children (Age 0-3 Years), New	"It is recommended that intensive	
	York State Department of	behavioral programs include as a minimum	
	Health Early Intervention	approximately 20 hours per week of	
	Program, 1999	individualized behavioral intervention using	
	http://www.nyhealth.gov/co	applied behavioral analysis techniques (not	
	mmunity/infants children/ea rly intervention/disorders/a	including time spent by parents). [A]"	
	utism/		
	http://www.nyhealth.gov/pu		
	blications/4216.pdf		
	DIICALIOTIS/4210.PUI		

American Society of Child and Adolescent Psychiatry, Psychiatry **Early and sustained intervention appears to be particularly important, regardless of the particular philosophy of the program, so long as a high degree of structure is provided. Such programs have typically incorporated behavior modification procedures and applied behavior analysis. These methods build on a large body of research on the application of learning principles to the education of children with autism and related conditions. Procedures that strengthen desired behaviors and/or decrease undesired maladaptive behaviors are utilized in the context of a careful and individualized plan of intervention based on observation of the individual. It is clear that behavioral improvement is helpful in reducing levels of parental stress." [Emphasis added] United States Department of Health and Surgeon General, **Early and sustained intervention appears to be particularly important, regardless of the porticularly important, regardless of the perticularly important, regardless of the particularly philosophy of the program, so long as a high degree of structure is provided. Such programs have typically incorporated behavior modification procedures and applied behavior analysis. These methods build on a large body of research on the application of learning principles to the education of children with autism and related conditions. Procedures that strengthen desired behaviors are utilized in the context of a careful and individualized plan of intervention based on observation of the individual. It is clear that behavioral improvement is helpful in reducing levels of parental stress." [Emphasis added] United States Department of Health and Human Services. Mental	Organization:	Clinical Practice Guideline:	Finding:	
### Practice Parameters For The Assessment And Treatment Of Children, Adolescents, And Adults With Autism And Other Pervasive Developmental Disorders," 1999. P. 37. http://www.aacap.org/galleries/PracticeParameters/Autism.pdf #### Thirty years of research demonstrated the particular philosophy of the program, so long as a high degree of structure is provided. Such programs have typically incorporated behavior modification procedures and applied behavior analysis. These methods build on a large body of research on the application of learning principles to the education of children with autism and related conditions. Procedures that strengthen desired behaviors and/or decrease undesired maladaptive behaviors are utilized in the context of a careful and individualized plan of intervention based on observation of the individual. It is clear that behavioral improvement is helpful in reducing levels of parental stress." [Emphasis added] #################################		American Academy of Child		
Assessment And Treatment Of Children, Adolescents, And Adults With Autism And Other Pervasive Developmental Disorders," 1999. P. 37. http://www.aacap.org/galleries/PracticeParameters/Autism.pdf These methods build on a large body of research on the application of learning principles to the education of children with autism and related conditions. Procedures that strengthen desired behaviors and/or decrease undesired maladaptive behaviors are utilized in the context of a careful and individualized plan of intervention based on observation of the individual. http://www.aacap.org/galleries/PracticeParameters/Autism.pdf These methods build on a large body of research on the application of children with autism and related conditions. Procedures that strengthen desired maladaptive behaviors are utilized in the context of a careful and individualized plan of intervention based on observation of the individual. https://www.aacap.org/galleries/PracticeParameters/Autism.pdf These methods build on a large body of research on the application of children with autism and related conditions. Procedures that strengthen desired maladaptive behaviors are utilized in the context of a careful and individualized plan of intervention based on observation of the individual. https://www.aacap.org/galleries/PracticeParameters/Autism.pdf These methods build on a large body of research on the application of children with autism and related conditions. Procedures that strengthen desired maladaptive behaviors and/or decrease undesired maladaptive behaviors and/or decrease undesired maladaptive behaviors and/or decrease undesired maladaptive behavioral individualized plan of intervention based on observation of language, social, and other	Child and Adolescent	and Adolescent Psychiatry,	to be particularly important, regardless of	
Of Children, Adolescents, And Adults With Autism And Other Pervasive Developmental Disorders," 1999. P. 37. http://www.aacap.org/galleries/PracticeParameters/Autism.pdf Developmental Disorders," 1999. PracticeParameters/Autism.	Psychiatry	"Practice Parameters For The	the particular philosophy of the program,	
And Adults With Autism And Other Pervasive Developmental Disorders," 1999. P. 37. http://www.aacap.org/galleries/PracticeParameters/Autism.pdf These methods build on a large body of research on the application of learning principles to the education of children with autism and related conditions. Procedures that strengthen desired behaviors and/or decrease undesired maladaptive behaviors are utilized in the context of a careful and individualized plan of intervention based on observation of the individual. It is clear that behavioral interventions can significantly facilitate acquisition of language, social, and other skills and that behavioral improvement is helpful in reducing levels of parental stress." [Emphasis added] United States Department of Health and incorporated behavior modification procedures and applied behavior analysis. These methods build on a large body of research on the application of learning principles to the education of children with autism and related conditions. Procedures that strengthen desired behaviors and/or decrease undesired maladaptive behaviors are utilized in the context of a careful and individualized plan of intervention based on observation of the individual. It is clear that behavioral improvement is helpful in reducing levels of parental stress." [Emphasis added] United States		Assessment And Treatment	so long as a high degree of structure is	
Other Pervasive Developmental Disorders," 1999. P. 37. http://www.aacap.org/galleri es/PracticeParameters/Autis m.pdf m.pdf Developmental Disorders," 1999. P. 37. http://www.aacap.org/galleri es/PracticeParameters/Autis m.pdf These methods build on a large body of research on the application of learning principles to the education of children with autism and related conditions. Procedures that strengthen desired behaviors and/or decrease undesired maladaptive behaviors are utilized in the context of a careful and individualized plan of intervention based on observation of the individual. It is clear that behavioral interventions can significantly facilitate acquisition of language, social, and other skills and that behavioral improvement is helpful in reducing levels of parental stress." [Emphasis added] United States Department of Health and * "Thirty years of research demonstrated the"		Of Children, Adolescents,	provided. Such programs have typically	
Developmental Disorders," 1999. P. 37. http://www.aacap.org/galleries/PracticeParameters/Autism.pdf m.pdf These methods build on a large body of research on the application of learning principles to the education of children with autism and related conditions. Procedures that strengthen desired behaviors and/or decrease undesired maladaptive behaviors are utilized in the context of a careful and individualized plan of intervention based on observation of the individual. It is clear that behavioral interventions can significantly facilitate acquisition of language, social, and other skills and that behavioral improvement is helpful in reducing levels of parental stress." [Emphasis added] United States Department of Health and "Thirty years of research demonstrated the		And Adults With Autism And	incorporated behavior modification	
1999. P. 37. http://www.aacap.org/galleri es/PracticeParameters/Autis m.pdf m.pdf research on the application of learning principles to the education of children with autism and related conditions. Procedures that strengthen desired behaviors and/or decrease undesired maladaptive behaviors are utilized in the context of a careful and individualized plan of intervention based on observation of the individual. It is clear that behavioral interventions can significantly facilitate acquisition of language, social, and other skills and that behavioral improvement is helpful in reducing levels of parental stress." [Emphasis added] United States Department of Health and "Thirty years of research demonstrated the				
http://www.aacap.org/galleri es/PracticeParameters/Autis m.pdf principles to the education of children with autism and related conditions. Procedures that strengthen desired behaviors and/or decrease undesired maladaptive behaviors are utilized in the context of a careful and individualized plan of intervention based on observation of the individual. It is clear that behavioral interventions can significantly facilitate acquisition of language, social, and other skills and that behavioral improvement is helpful in reducing levels of parental stress." [Emphasis added] United States Department of Health and * "Thirty years of research demonstrated the		· ·	9 ,	
autism and related conditions. Procedures that strengthen desired behaviors and/or decrease undesired maladaptive behaviors are utilized in the context of a careful and individualized plan of intervention based on observation of the individual. It is clear that behavioral interventions can significantly facilitate acquisition of language, social, and other skills and that behavioral improvement is helpful in reducing levels of parental stress." [Emphasis added] United States Department of Health and • "Thirty years of research demonstrated the			, ,	
m.pdf that strengthen desired behaviors and/or decrease undesired maladaptive behaviors are utilized in the context of a careful and individualized plan of intervention based on observation of the individual. It is clear that behavioral interventions can significantly facilitate acquisition of language, social, and other skills and that behavioral improvement is helpful in reducing levels of parental stress." [Emphasis added] United States Department of Health and * "Thirty years of research demonstrated the"			·	
decrease undesired maladaptive behaviors are utilized in the context of a careful and individualized plan of intervention based on observation of the individual. It is clear that behavioral interventions can significantly facilitate acquisition of language, social, and other skills and that behavioral improvement is helpful in reducing levels of parental stress." [Emphasis added] United States Department of Health and • "Thirty years of research demonstrated the				
are utilized in the context of a careful and individualized plan of intervention based on observation of the individual. It is clear that behavioral interventions can significantly facilitate acquisition of language, social, and other skills and that behavioral improvement is helpful in reducing levels of parental stress." [Emphasis added] United States Department of Health and • "Thirty years of research demonstrated the		m.pdf		
individualized plan of intervention based on observation of the individual. It is clear that behavioral interventions can significantly facilitate acquisition of language, social, and other skills and that behavioral improvement is helpful in reducing levels of parental stress." [Emphasis added] United States Department of Health and • "Thirty years of research demonstrated the			·	
observation of the individual. It is clear that behavioral interventions can significantly facilitate acquisition of language, social, and other skills and that behavioral improvement is helpful in reducing levels of parental stress." [Emphasis added] United States Department of Health and • "Thirty years of research demonstrated the				
behavioral interventions can significantly facilitate acquisition of language, social, and other skills and that behavioral improvement is helpful in reducing levels of parental stress." [Emphasis added] United States Department of Health and • "Thirty years of research demonstrated the			·	
facilitate acquisition of language, social, and other skills and that behavioral improvement is helpful in reducing levels of parental stress." [Emphasis added] United States Department of Health and • "Thirty years of research demonstrated the				
and other skills and that behavioral improvement is helpful in reducing levels of parental stress." [Emphasis added] United States Department of Health and • "Thirty years of research demonstrated the				
improvement is helpful in reducing levels of parental stress." [Emphasis added] United States Department of Health and • "Thirty years of research demonstrated the				
United States Department of Health and parental stress." [Emphasis added] • "Thirty years of research demonstrated the				
United States Department of Health and • "Thirty years of research demonstrated the			, , , , , , , , , , , , , , , , , , , ,	
1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	United States	Department of Health and		
		•	' '	
U.S. Department of Health: A Report of the reducing inappropriate behavior and in		·	, , ,	
Health and Human Surgeon General. Rockville, increasing communication, learning, and				
Services MD: Department of Health appropriate social behavior."				
and Human Services,		•	appropriate social behavior.	
Substance Abuse and Mental		•		
Health Services				
Administration, Center for				
Mental Health Services,		-		
National Institute of Mental		·		
Health, 1999.		Health, 1999.		
http://www.surgeongeneral.		http://www.surgeongeneral.		
gov/library/mentalhealth/cha		gov/library/mentalhealth/cha		
pter3/sec6.html#autism		pter3/sec6.html#autism		

Reports by other professional and governmental associations

Organization:	Report:	Finding:
National Autism Center The National Autism Center is May Institute's center for the promotion of evidence-based practice http://www.national autismcenter.org/	National Standards Report, National Autism Center, 2009 http://www.nationalautismc enter.org/pdf/NAC%20NSP% 20Report FIN.pdf	 Developed by an expert panel, "based on a thorough review of the educational and behavioral treatment literature that targets the core characteristics and associated symptoms of ASD that was published between 1957 and the fall of 2007" Identified "11 'Established' Treatments: treatments that produce beneficial outcomes and are known to be effective for individuals on the autism spectrum. The overwhelming majority of these interventions were developed in the behavioral literature (e.g., applied behavior analysis, behavioral psychology, and positive behavior support)."
Maine Departments of Health and Human Services and Department of Education, Children's Services Evidence- Based Practice Advisory Committee http://www.maine.g ov/dhhs/ocfs/cbhs/e bpac/index.shtml	Interventions for Autism Spectrum Disorders: STATE OF THE EVIDENCE, October 2009 http://www.maine.gov/dhhs /ocfs/cbhs/ebpac/asd- report2009.pdf	 Reviewed more than 150 studies of 43 different treatments for children with ASD, using a validated rubric, the Evaluative Method for Determining Evidence-Based Practice in Autism (Reichow, Volkmar, & Cicchetti, 2008), and assigned each intervention a level of evidence rating. Found that applied behavior analysis for challenging behavior, communication, and social skills and earlier intensive behavioral intervention met criteria for "Established Evidence"
The Missouri Autism Guidelines Initiative Missouri Department of Mental Health http://www.autismg uidelines.dmh.mo.go v/default.htm	Autism Spectrum Disorders: Guide to Evidence-based Interventions: A 2012 Consensus Publication, 2012 http://www.autismguidelines .dmh.missouri.gov/document s/Interventions.pdf	 Describes evidence based interventions for individuals with autism spectrum disorders (ASDs) based on six recent nationally recognized systematic research reviews. Concluded that many forms of Applied Behavior Analysis (ABA), such as Comprehensive Behavioral Treatment for Young Children, Early Intensive Behavioral and Developmental Approaches, and Focused Behavioral Interventions have been shown to be effective treatments for autism

Organization:	Report:	Finding:
New Zealand	Guideline Supplementary	 "Interventions and strategies based on
Guidelines Group	Paper New Zealand Autism	applied behaviour analysis (ABA) principles
New Zealand	Spectrum Disorder Guideline	should be considered for all children with
Ministry of Health	Supplementary Evidence on	ASD." (Grade A) [The recommendation is
http://www.health.g	Applied Behaviour Analysis,	supported by GOOD evidence (where there
ovt.nz/	May 2010	is a number of studies that are valid,
	http://www.health.govt.nz/s	applicable and clinically relevant)]
	ystem/files/documents/publi	"Early intensive behavioural intervention
	cations/asd-guideline-	(EIBI) should be considered as a treatment
	supplementary-paper.pdf	of value for young children with ASD to
		improve outcomes such as cognitive ability,
		language skills, and adaptive behaviour."
		(Grade B) [The recommendation is
		supported by FAIR evidence (based on
		studies that are mostly valid, but there are
		some concerns about the volume,
		consistency, applicability and/or clinical
		relevance of the evidence that may cause
		some uncertainty, but are not likely to be
		overturned by other evidence).]

Expert analysis by autism researchers

Article:	Content / Findings:
Larsson, E.V., "Is Applied Behavior Analysis (ABA) and Early Intensive Behavioral Intervention (EIBI) an Effective Treatment for Autism? A Cumulative Review of Impartial Reports", The Lovaas Institute for Early Intervention, 2013	 Reviews research findings related to the effectiveness of EIBI and ABA therapy as a treatment for autism, against standard definitions of experimental or investigational treatments Concludes that applied behavior analysis, behavior therapy, and early intensive behavioral intervention are all well-established interventions that can't be considered experimental or investigational
Larsson, E.V., "Applied Behavior Analysis (ABA) for Autism: What is the Effective Age Range for Treatment?", The Lovaas Institute for Early Intervention, 2012	 Provides a list of 237 references documenting the clinically important impact of Applied Behavior Analysis (ABA) with children and adolescents who are between the ages of 5 and 21

Legal rulings by courts of law

Case:	Content / Findings:
McHenry v PacificSource	"ABA therapy is firmly supported by decades of research
	and application and is a well-established treatment
Case CV-08-562-ST, United Sates	modality of autism and other PDDs. It is not an
District Court for the District of	experimental or investigational procedure" (document 59,
Oregon, 1/5/2010 and 9/28/2010	1/5/10, page 19)
K.G. et al v. Florida Agency for Health Care Administration Case No. 11-20684-CIV-LENARD /	"I find that applied behavior analysis is medically necessary and not experimental I find that the determination by AHCA that ABA is experimental was unreasonable in its process, was arbitrary and capricious and unreasonable in
O'SULLIVAN, United States District Court for the Southern District of Florida, March 26, 2012 and November 5, 2013	 its conclusion." "17. ABA is "medically necessary" and is not "experimental" as defined under Florida administrative law and federal law."
	"19. ABA is indisputably considered by the medical community to be the standard means of treatment for children with ASD."
	 "20. ABA is indisputably considered proven and effective by the medical community."
	 "21. There is a plethora of medical and scientific literature including peer-reviewed meta-analyses, studies, and articles conclusively showing that ABA is a proven and effective treatment to prevent disability and restore developmental skills to children with autism and ASD." "28. The Defendant violated EPSDT provisions of the Medicaid Act by excluding coverage of Applied Behavior Analysis (ABA) for Medicaid-eligible recipients under 21"
D.F.et al v Washington State Health	"From the evidence presented to the court, it is apparent
Care Authority; PEBB Case No. 10-2-29400-7 SEA, Superior	 that ABA therapy may provide benefit to some individuals." "The court concludes that, as a matter of law, plaintiffs are entitled to a declaration that specific exclusions contained.
Court of Washington for King County,	entitled to a declaration that specific exclusions contained in health benefit plans administered by the defendants that
June 8, 2011	exclude coverage of Applied Behavior Analysis therapy,
34.1C 0, 2011	even when medically necessary and performed by licensed health providers, do not comply with Washington's Mental Health Parity Act The Court further declares that under the Mental Health Parity Act defendants are required to cover medically necessary Applied Behavior Analysis therapy, as determined on an individualized basis, when provided by licensed therapists."

Case:	Content / Findings:
Berge v United States of America	" the assessments cited by the Agency suggest that
(Tricare)	behavioral modification therapy is the closest intervention
	medical professionals have identified as the standard
Civil Action No. 10-0373 (RBW),	means for treating autism (ABA is "the dominant and
United States District Court for the	preferred treatment modality" for autism). Therefore, this
District of Columbia, July 26, 2012	Court is left to wonder what forms of autism treatment
	would satisfy the Agency's regulatory requirement of being
	proven when the very sources the Agency relies upon to
	declare ABA therapy unproven cannot identify one form of
	treatment that is more effective than ABA therapy. Since
	the Agency has failed to articulate a reasoned explanation
	for its determination that ABA therapy is unproven, particularly in light of evidence before it suggesting the
	contrary, the Court must conclude that the Agency's
	determination is arbitrary and capricious."
	"Agency's denial of ABA therapy coverage under the Basic
	Program is arbitrary and capricious"
Potter, Boyer v Blue Cross Blue	"Given that the studies in the record almost uniformly
Shield of Michigan	conclude that ABA is effective, and make almost no
	distinction between types of autism spectrum disorder, the
Case No. 2:10-cv-14981-SJM-MJH,	Court finds that the 2010 medical policy's statement that
U.S. District Court, Eastern District of	ABA's effectiveness 'in the treatment of certain types of
Michigan, Southern Division, March	autism spectrum disorders has not been established' is not
30, 2013	supported by the record."
	"The medical policy also does not describe why 'several
	studies' providing relatively long follow-up data does not
	constitute 'enough long-term studies.' To the extent BCBS relies on the numerical insufficiency of the long-term
	studies of ABA therapy, its policy is internally inconsistent
	and unsupported; reliance on it to determine benefits
	would be arbitrary and capricious."
	" with respect to randomization, the studies cited in the
	medical policy state that randomized studies of ABA
	therapy are unavailable for ethical and practical reasons,
	and the single randomized study cited in the policy
	confirmed ABA's efficacy."
	"It is further ordered that Defendant's characterization and
	exclusion of ABA therapy as experimental or investigative,
	as applied to the claims of the class members, was, and is,
	arbitrary and capricious."
Churchill v CIGNA	Unopposed settlement agreement awarding \$2.4 million to
Cara Na. 2:40 av 00044 IC II C	a class of consumers denied coverage of ABA therapy on
Case No. 2:10-cv-06911-JS, U.S.	grounds that it was "experimental or investigational"
District Court, Eastern District of	
Pennsylvania, October 17, 2013	

Case:	Content / Findings:
S.A.H. ex rel. S.J.H. v. State, Dept. of Soc. & Health Services Case No. 24198-0-III, Court of Appeals of Washington, Division 3, December 19, 2006 League for Effective Autism Services v. Jones-Kelley Case 2:08-cv-00421-JLG-NMK, U.S. District Court, Southern District of	 "It is undisputed in this case that ABA therapy is a necessary treatment to correct or ameliorate S.H.'s mental condition of autism. See CP 8 ("ABA therapy is a type of therapy proven to be effective in working with some autistic individuals and was specifically recommended by the Appellant's doctor.")." "ABA therapy, when recommended by a licensed practitioner of the healing arts, is a medically necessary service which provides the maximum reduction of a mental or physical disability." "For an autistic child, 'the best treatment plan will include"
Ohio, Eastern Division, June 30, 2008	ABA [applied behavioral analysis], the only treatment approach confirmed as effective by a comprehensive evaluation of all proposed therapies in a well known government sponsored review process." • "ABA therapy is 'a highly effective form of behavioral treatment in virtually all cases" • "If the Plaintiff children are no longer able to receive the medically recommended 35-40 hours of ABA therapy per week, there is sufficient evidence that the children will experience regression."
Hummel v. Ohio Dept. of Job & Family Servs 164 Ohio App.3d 776, 2005-Ohio-6651, Court of Appeals of Ohio, Sixth Appellate District, Lucas County, December 16, 2005	"Studies have shown ABA therapy to be an effective treatment for autism among some children. ABA literature presented in these proceedings suggests that early intensive treatment allows some children to achieve normal intellectual functioning by training the brain's circuitry while it is still developing."

Policy Decisions by Governmental Agencies

Government Agency / Report: Content / Findings: State of California Department of • "Based on the numerous decisions of CDI's independent Insurance, "Senate Select Committee medical reviewers concerning the medical necessity of on Autism & Related Disorders behavioral health treatment, which includes Behavioral Informational Hearing on Health Intervention Therapies (BIT), such as Applied Behavioral **Insurance Coverage for Autism** Analysis therapy (ABA), CDI has concluded that ABA therapy Spectrum Disorders (ASD): Current is medically necessary treatment for individuals with Regulatory Oversight of Behavioral autism." Intervention Therapy", July 13, 2011 • "CDI's clinician reviewers consistently find that ABA therapy is neither experimental nor investigational; and leads to http://www.insurance.ca.gov/0100significant improvements in IQ, communication and consumers/0070-healthlanguage skills, and adaptive behaviors; as well as to issues/upload/PartISenateSelectreduction in self injurious behaviors." CommitteeSubmissionV2.pdf • "CDI regulated health insurers may not legally continue to deny ABA claims unless there is a clear basis for determining that for that specific patient at that point in time, ABA therapy is not medically necessary." **Interagency Autism Coordinating** • "While intensive behavioral interventions are expensive, Committee, U.S. Department of they are effective and recent data support that they are **Health and Human Services**, Letter cost-effective, mitigating these long-term costs of disability. to Secretary Sebelius on Health Research tells us that treatment works. As a result, the Coverage, March 25, 2013 American Academy of Pediatrics and the United States Surgeon General have endorsed these interventions." http://iacc.hhs.gov/publications/201 • "A Federal minimum standard of autism coverage should 3/letter coverage 032513.pdf be set for all health plans offered in the individual and small group markets. Minimum coverage should include evidence-based early intervention—including but not limited to ABA—for children with ASD, at a level of intensity indicated by the evidence."