



Therapeutic Medical Services & Autism Spectrum Disorder

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ABSTRACT

Autism Spectrum Disorder is a neurodevelopmental disorder characterized by dysfunction in social emotional development. According to the American Academy of Pediatrics, in 2020 1 in 59 children have been diagnosed with autism in the United States. There are no pharmacological treatments for autism spectrum disorder and individuals are recommended to receive various therapeutic and rehabilitative medical services such as applied behavioral analysis, speech therapy, occupational therapy, developmental, educational, social social-relational, cognitive behavioral therapy, and complementary/alternative therapy services. The American Pediatric Association recommends that children diagnosed with autism spectrum disorder receive ABA therapy, 40 hours weekly, which has been deemed the “gold standard” for recommended medical services. The objective of the community engagement experience was to research, collect, and summarize literature regarding the use of ABA therapy as a treatment and understand favorability of its use in the US and abroad within the medical community. Obtain a position as a Certified Behavior Technician and gain first-hand experience utilizing ABA techniques as directed by a BCBA.

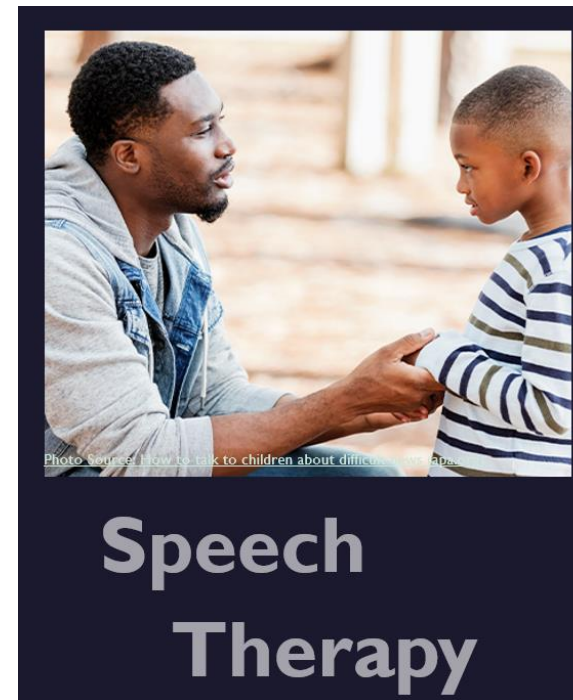
Autism Spectrum Disorder is a neurodevelopmental disorder characterized by dysfunction in early childhood development of social communication, social interaction accompanied by a display of restrictive patterns of behavior, interests, or activities which cause significant impairment in social, occupational, and other aspects of individuals lives (American Psychiatric Association, 2015).

Recommended Treatments for ASD



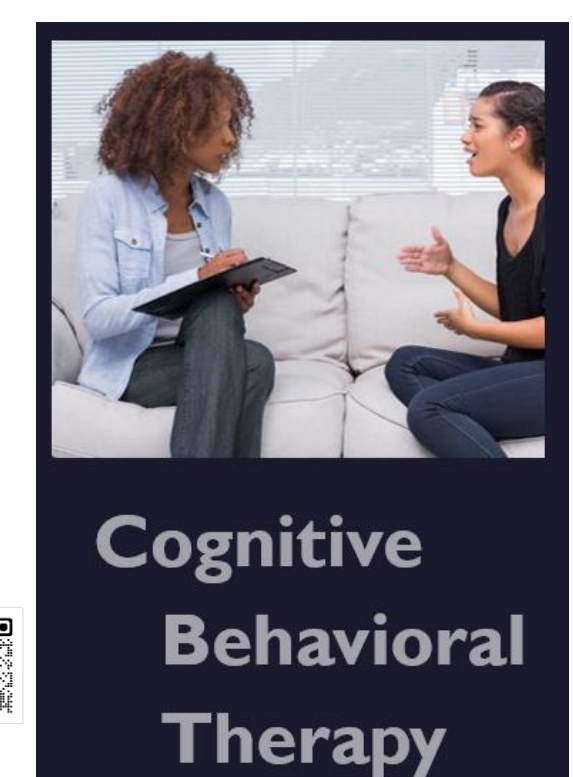
“**Pediatric occupational therapy** focuses on helping children develop the skills they need to grow into functional, independent adults. Physical impairment, injuries and a host of other issues can hamper a child’s ability to perform common tasks or progress normally through the stages of social or cognitive development.” (AAHS, 2020). Occupational Therapists work with clients who have been diagnosed with ASD by building skills in all areas of diagnostic criterion that are deemed deficient and by extinguishing maladaptive behaviors.

Speech Language Pathologists use evidence-based practices to treat speech disorders, language disorders, and swallowing problems (National Library of Medicine, 2022). Deficits in verbal and non-verbal communicative behaviors are characteristic of Autism Spectrum Disorder (American Psychiatric Association, 2015). **Speech Therapy** is used to build clients expressive and comprehensive language skills.



Applied behavioral analysis is a theoretical approach used in the treatment of autism spectrum disorder by systemically applying evidence-based intervention practices to improve behavior (American Association of Pediatrics, 2020). ABA Therapists work with clients who have been diagnosed with ASD by building skills in all areas of diagnostic criterion that are deemed deficient and by extinguishing maladaptive behaviors.

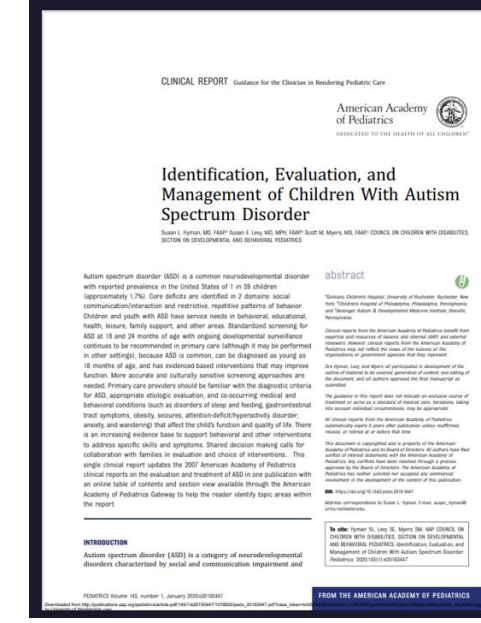
Psychological treatment by identifying unhelpful patterns of thinking & behaviors by teaching patient’s mindfulness and development of coping strategies that result in a change in behaviors that impede livelihood and development (American Psychological Association, 2020). Individuals with ASD have difficulties with social-emotional development and understanding relationships. **Cognitive Behavioral Therapy** promotes social emotional intelligence through talk therapy.



The Medical Community on Treating ASD

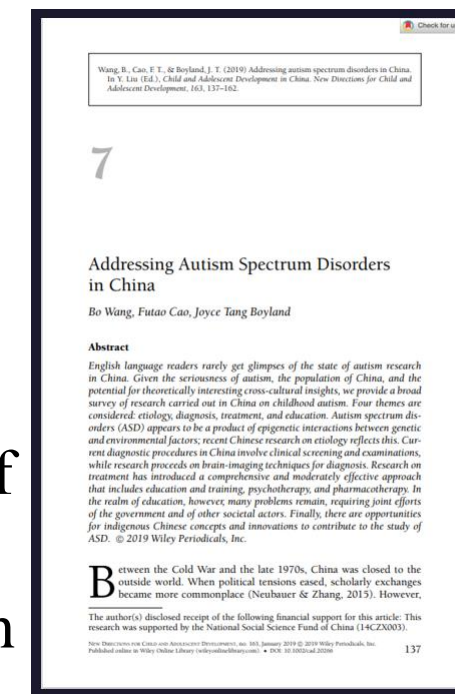
The American Pediatric Association

The APA’s clinical report on treatment of Autism Spectrum Disorder states that “treatments should be individualized, developmentally appropriate, and **intensive**, with performance data relevant to treatment goals to evaluate and adjust intervention. All interventions should be based on sound theoretical constructs, rigorous methodologies, and objective scientific evidence of effectiveness” (APA, 2020). Pediatricians advise intervention and prescribe therapy services. ABA Therapy, Educational Intervention, Speech Therapy, and Occupational Therapy (APA, 2020). Pharmaceutical are used to treat comorbidities, not characteristics (APA, 2020)



The Chinese Journal of Pediatrics

The classification for ASD in this region of the world is Pervasive Developmental Disorder (PCHS, 2022). Diagnostic criterion is defined by the World Health Organization guidelines (PCHS, 2022). Rate of Diagnosis is low 25/10,000 (PCHS, 2022). The scientific standards are stricter in China “...Chinese psychologists are discomfited by the subjectivity of behavior-based diagnosis” (PCHS, 2022). The research community moves to find biological markers for diagnosis such as electrophysiological, neurophysiological, and brain morphological indicators that result in prevalence of diagnostic characteristics (PCHS, 2022)



Indian Journal of Pediatrics

“Early identification translates into timely intervention and better prognosis. It is important to build up a network of reliable and competent multi-disciplinary professionals for the management of affected children and their families.” (Indian Journal of Pediatrics, 2017). Treatment recommendations are individualized and based on chronological age, perceived strengths/“weaknesses” (Indian Journal of Pediatrics, 2017). Recommendations are that younger children 15-25 hrs. weekly and older children receive ABA therapy to treat maladaptive behaviors, develop appropriate social communication skills, and improve academic performance (Indian Journal of Pediatrics, 2017)

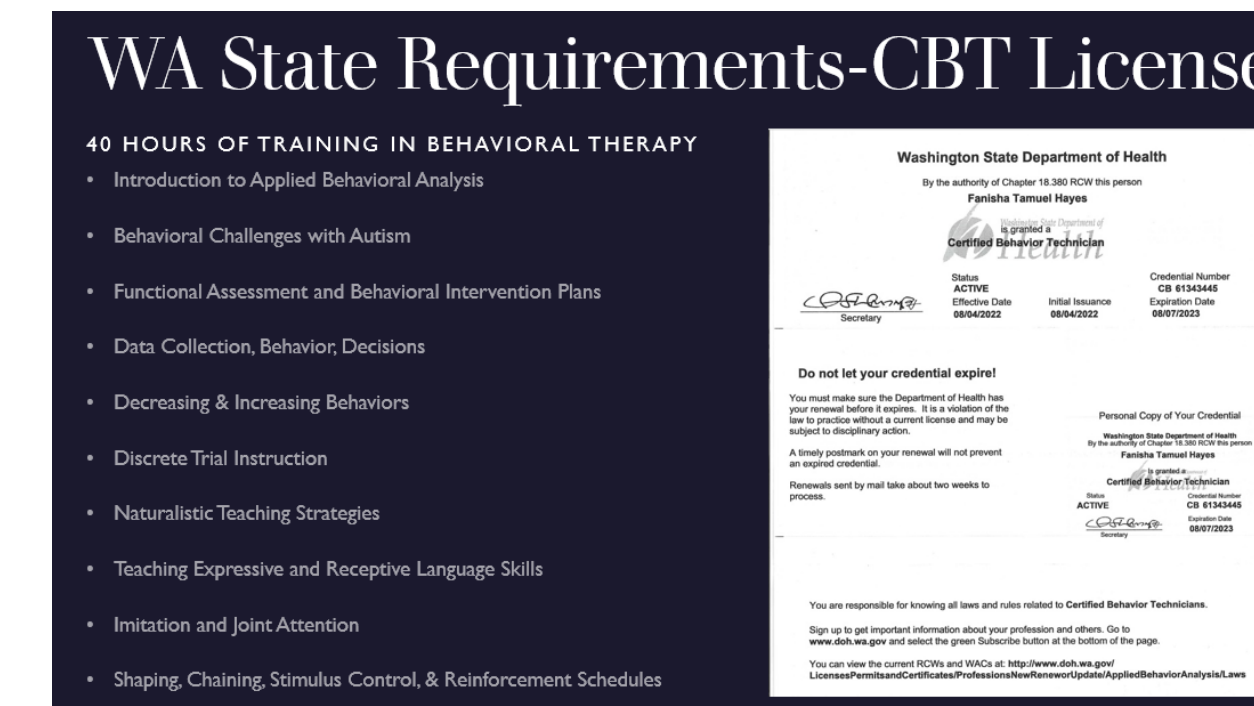


Swedish Scientific Community on Diagnosis and Treatment of ASD

The rate of diagnosis of ASD in Sweden is 20/10,000 (BMJ, 2015). “...other developmental disorders, such as intellectual development disorder, language disorder, and attention deficit/hyperactivity disorder [which] may have become overshadowed [by ASD diagnosis]” (BMJ, 2015). The article goes on to state that “...there is growing evidence that these other developmental disorders are at least as good as or perhaps even better indicators of outcome as autism spectrum disorder” (BMJ, 2015). The consensus is that a proper diagnosis is needed in order to implement effective treatment.



Community Engagement Experience



Being able to observe Certified Behavioral Technicians before being assigned to work independently with a client was essential to complete training process.

Observation- CBT A /Client 1

Therapeutic environment was residential with a client who was male, 7 years of age, and non-verbal. The CBT established reinforcers of interest to the client and implemented ABA program with goals established by supervising BCBA. Goals included development of skills in gross motor, fine motor, echoic imitation, ‘manding’ in ASL, comprehensive communication, and self-care. Extinction intervention goal was to increase tolerability of denied access to desired objects, behaviors, and actions. The child responded to CBT initiated activities and the therapist recorded behavioral data in data base and summarized session in medical chart.

Observation- CBT B/Client 2

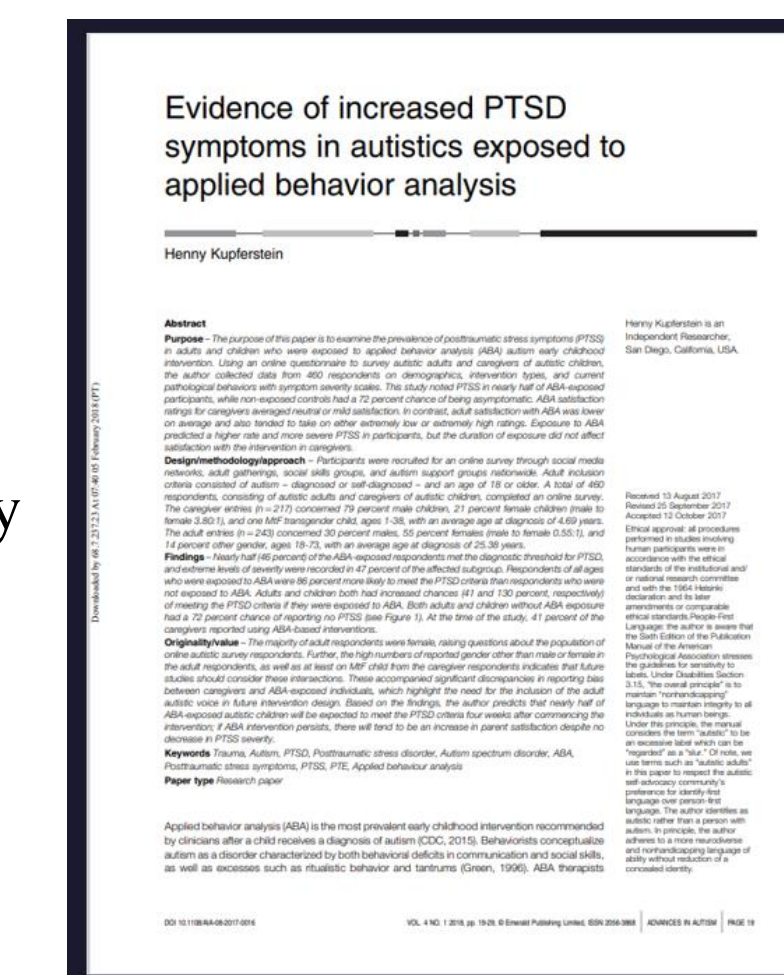
Therapeutic environment was academic (preschool) classroom with a client who was male, 4 years of age with significant verbal skills. The CBT established preferred activities as reinforcers and implemented ABA program with goals established by supervising BCBA. Goals included development of fine motor skills, gross motor skills, comprehensive language, expressive language, self-care, social emotional development, and classroom compliance. During the client’s preferred activity, the CBT prompted the client to utilize restroom. Although the client denied the need to utilize the restroom, the CBT insisted, physically escorting the client to the restroom. The CBT blocked the entry way to the restroom and verbally prompted the client to use the restroom. The client verbally declined and began to cry. The child remained blocked for approximately 10 minutes, cried, and stated he was “scared”. The CBT presented a new choice to the client, to either use the restroom or take a nap. The client agreed to take a nap and was allowed to leave the restroom.

Basic bioethical principles that are to be maintained and upheld by all healthcare workers are non-maleficence, respect for autonomy, justice, and beneficence (Campbell, 2017).



Implications of Treating ASD using ABA Therapy

Although caregivers report positive relationship between effectiveness of ABA and duration of exposure to treatment, ABA Therapy could increase the probability of exposure to potentially traumatic events that could cause post traumatic stress symptoms and lead to diagnosis of posttraumatic stress disorder. Exposure to ABA are 86% more likely to meet PTSD criteria. The duration of exposure to intervention correlates with the severity of PTSD symptoms.



Recognizing Neurodiversity

Neurodiversity is a term used to describe the variability in cognitive function among individuals in society and promote the ethos of inclusion by:

- Normalizing cognitive diversity
 - Change terminology & dialogue
- Increase acceptance
 - Differences are not “deficits”
 - Embrace differences

“There is no right way of thinking, learning, or behaving” (Harvard Medical School, 2021).



Chinese Journal of Pediatrics “...it should be expected that autism will look different in different cultures, and behaviors that signal autism in one culture (such as lack of eye contact) would carry different meanings in other cultures.”

Indian Journal of Pediatrics “Delays are not always truly cognitive as the inability to perform a skill may be due lack of interest (intrinsic to the nature of ASD) and opportunity (it is easier and less stressful for the caregiver to do the task rather than struggle with the child to do it) rather than lack of capability.”

Recommendations: Future Personal Development

Data exist to support that ABA therapy is an effective form of treatment for extinction of target behaviors and development of desired behavioral skills in patients diagnosed with Autism Spectrum Disorder.

Community Voices Matter! Reports of implications and adverse impacts need to be acknowledged. More data can be collected to investigate future outcomes of children receiving ABA Therapy. It is significant that data parameters include patient demographics, treatment environment, frequency, duration, and reflects patients self report of their experiences and their own outcomes as they transition into adulthood.

This community engagement has had significant impact in personal development and growth. There are many ABA techniques that overlap in pediatric occupational therapy settings. This opportunity has provided direct experience implementing those techniques and provide the foundation academically and can be applied when working with clients as an occupational therapist in the future.