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# SENIOR THESIS APPROVAL

This Honors thesis entitled

**Uniquely Unique: Helping Arkansas Parents Cater to the Unique Needs of Their Child with Autism**

written by

**Shelby Cheek**

and submitted in partial fulfillment of the requirements for completion of the Carl Goodson Honors Program meets the criteria for acceptance and has been approved by the undersigned readers.

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Dr. Sandra Gilliland, thesis director

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Dr. Jeanette Braswell, second reader

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Dr. Deborah Root, third reader

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Dr. Barbara Pemberton, Honors Program director

April 22, 2025

**Uniquely Unique: Helping Arkansas Parents Cater to the Unique Needs of  
Their Children with Autism**

Shelby Cheek

Carl Goodson Honors Program

Ouachita Baptist University

HNRS 4984.0 Honors Thesis

Dr. Sandy Gilliland

April 22, 2025

## **Part 1: Understanding your Child's Unique Diagnosis**

Discovering that your child is on the autism spectrum is difficult for many parents. My mission is to support Arkansas parents raising children diagnosed with Autism Spectrum Disorder (ASD) by providing a comprehensive overview of information on accessing community, financial support, educational resources, and treatment services within the state. *Uniquely Unique* functions to help parents understand what this diagnosis means for their family, provide stories from parents raising a child on the autism spectrum, explains ways to gain coverage for treatments, give insight into proven treatments, how to engage with special education programs, and provides practical strategies to be used in the home to support their child's development. I will be discussing testimonials from interviews conducted with parents raising children with ASD that live in rural communities across the state of Arkansas. I also include information from interviewing professionals in the fields of pharmaceuticals, speech pathology, and occupational therapy (all interviewees' names will be omitted for confidentiality). Just a disclaimer, all information is derived from prior research and personal testimony and should not be used as a substitute from consulting a professional mental health provider. This content should be used as a resource to better understand how Arkansas parents can meet the needs of their child on the autism spectrum.

All information from this thesis will be included on a website to increase easy access for parents. I plan to update the website regularly to reflect the latest research and services available in Arkansas to ensure information remains relevant and reliable. It is essential for parents to have valid information to navigate the complexities of autism. I hope that this website allows parents to foster community among other parents that have the joy of raising a child on the autism

spectrum. I would like to begin by giving a brief overview of this unique disorder and provide statistics for the prevalence rates of autism within the state.

## **Defining Autism**

Autism Spectrum Disorder is a neurodevelopmental disorder characterized by a limitation in social communication and interaction, repetitive behaviors, and narrowed interests. The term “spectrum” is used because the severity and presentation of symptoms can vary widely among individuals. According to the American Psychiatric Association (APA), ASD includes a range of disorders previously diagnosed separately, including Asperger’s syndrome and pervasive developmental disorder not otherwise specified (PDD-NOS) (APA, 2013).

Individuals with ASD may exhibit limited eye contact, difficulty with verbal and nonverbal communication, and a preference for routines or rituals. These characteristics can appear in early childhood and continue into adulthood. ASD is often diagnosed through a combination of behavioral assessments, developmental history, and standardized diagnostic criteria. The condition is typically diagnosed when symptoms become noticeable between the ages of two and three years, though some individuals may be diagnosed later in life (Lord et al., 2020). It is important to note that there is no single definitive test for ASD; rather, it is diagnosed through a comprehensive evaluation process. The causes of ASD are not entirely understood, but research indicates that a combination of genetic and environmental factors contributes to the development of the disorder. Twin studies show a higher concordance rate for ASD in identical twins, suggesting a strong genetic component (Sandin et al., 2017). Environmental factors such as prenatal exposure to certain substances, advanced parental age, and complications during pregnancy may also increase the risk, although no single cause has been definitively linked to the disorder. Autism is a disorder that puzzles many, but a program in Arkansas is working to

educate healthcare providers and special education teachers with the information to better understand what autism looks like in our state.

### **Arkansas Autism Prevalence Rate**

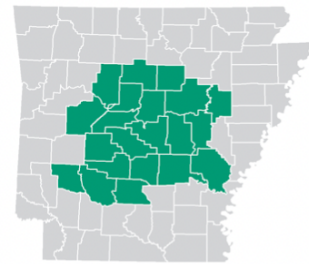
The prevalence rate of autism is continually monitored by the *Arkansas Autism and Developmental Disabilities Monitoring (AR-ADDM) Program* by analyzing data collected from the health and special education records of 4- and 8-year-olds with ASD. This program is part of the *Autism and Developmental Disabilities Monitoring (ADDM) Network* which is funded by the Center for Disease Control and Prevention (CDC) United States Department of Health and Human Services. There are 11 states gathering snapshots of ASD of children in multiple communities across the United States. The AR-ADDM partners with UAMS Department of Pediatrics and Arkansas Children's Hospital to train physicians and staff on the number and characteristics of children with ASD. The monitoring program also collaborates with the Arkansas Department of Education to conduct analyses and present findings to special education staff across the state.

AR-ADDM works with community partners to improve early identification and reduce disparities among children with ASD. This program has helped Arkansas residents understand more about the number of children on the spectrum, characteristics of the disorder, and the age at which they first get evaluated and diagnosed. There are currently 21 counties located in central Arkansas included in the tracking site area. Their latest report was completed in 2020. *Figure 1* shows the findings from their latest report. Some of the key takeaways from this snapshot is that more children were identified with ASD in 2020 than in previous AR-ADDM data, and children 4 years of age were more likely to be identified with ASD by 48 months than children who were

8 years, indicating improvements in early identification (CDC, 2023). AR-ADDM reports provide reliable and valuable information to support autism in Arkansas.

# A Snapshot of Autism Spectrum Disorder in Arkansas

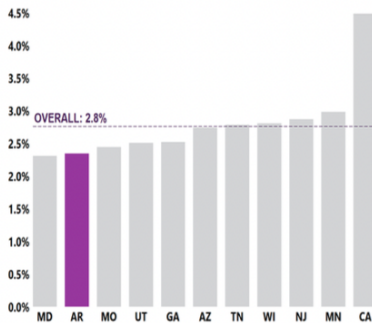
Findings from the Arkansas Autism and Developmental Disabilities Monitoring (AR-ADDM) Program help us to understand more about the number of children with autism spectrum disorder (ASD), the characteristics of those children, and the age at which they are first evaluated and diagnosed.



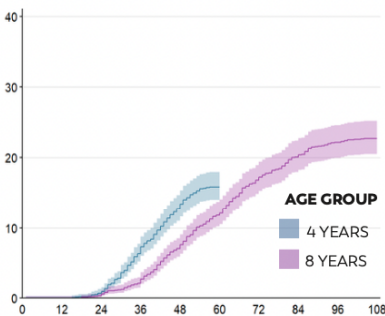
**SITE TRACKING AREA**

## 1 in 43

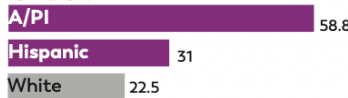
Or 2.4% of 8-year-old children identified with ASD by AR-ADDM in 2020.



This percentage is slightly lower than the overall percentage identified with ASD (2.8%) in all communities where CDC tracked ASD among 8-year-olds in 2020.



Among 8-year-olds, Asian/Pacific Islander (A/PI) and Hispanic children were 2.6 times as likely and children were 1.4 times as likely to be identified with ASD as White children.

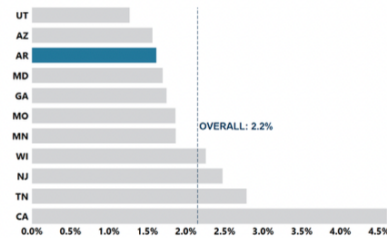


Values indicate prevalence per 1,000 children. No significant differences in ASD prevalence were found between White and Black 8-year-olds.

Among 4-year-olds, Black children were 1.6 times as likely to be identified with ASD as White children.



About 1 in 62 or 1.6% of 4-year-old children were identified with ASD by AR-ADDM in 2020.



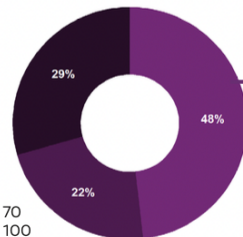
This percentage is lower than the overall percentage identified with ASD (2.2%) in all communities where CDC tracked ASD among 4-year-olds in 2020.

**IQ data available for 91% of 8-year-old children identified with ASD by AR-ADDM**

### IQ SCORE\*

- ≤ 70
- 71 - 85
- > 85

IQ = Intelligence Quotient  
Intellectual disability = IQ ≤ 70  
\*Percentages may not total 100 due to rounding



**48%** had Intellectual Disability

### By 48 months

Children who were age 4 years were 1.8 times as likely to be identified with ASD by 48 months of age as children who were age 8 years.

**About 88% of 4-year-old children**

identified with ASD received a comprehensive developmental evaluation by 3 years of age.



Figure 1.



While there is increasing awareness about ASD with the work of the AR-ADDM, there are still myths about the origins of autism that have contributed to misinformation about the condition. These myths not only maintain misunderstanding but also hinder individuals with ASD from receiving the support they need.

### **Truth Behind the Myths**

Many know the definition of autism well and the symptoms that are typically associated with the disorder. Even though more people are aware of autism in our state and globally, there is still myths that are spread that misinform parents of the origin and treatment of the disorder. This leads parents to buying into unproven treatments that could be harmful for their child and limiting their child from receiving scientifically proven preventatives to protect their children from unwanted diseases.

#### *Myth 1: Autism is Caused by Vaccines*

The claim that vaccines cause autism has been a controversial and persistent myth for decades. Despite overwhelming evidence from the scientific community that vaccines are safe and do not cause autism, this myth continues to influence public health decisions, primarily due to misinformation spread by individuals and organizations with little scientific backing. This false narrative has caused widespread fear and confusion, leading to vaccine hesitancy and outbreaks of preventable diseases. While the myth is grounded in the fraudulent research of Andrew Wakefield and perpetuated by influential figures such as Robert F. Kennedy Jr., the scientific consensus is clear: vaccines do not cause autism.

The vaccine-autism myth first gained significant traction in 1998 with the publication of a study by Andrew Wakefield in *The Lancet*, a prestigious British medical journal. In this now-discredited paper, Wakefield suggested a link between the MMR (measles, mumps, and rubella)

vaccine and autism. Wakefield's hypothesis was based on 12 children, some of whom had developed autism symptoms shortly after receiving the MMR vaccine. However, his research was deeply flawed: the sample size was small, the data was incomplete and selectively reported, and Wakefield had undisclosed financial conflicts of interest, including being paid by lawyers who were attempting to sue vaccine manufacturers (Taylor et al., 1999). In 2010, *The Lancet* fully retracted the paper, and Wakefield was subsequently found guilty of serious professional misconduct by the General Medical Council. He was stripped of his medical license, and his research was widely discredited (Godlee et al., 2011). Despite the retraction and the overwhelming rejection of his findings by the scientific community, Wakefield's claims continue to influence public perception of vaccines and autism.

Another prominent figure in the vaccine-autism debate, Robert F. Kennedy Jr., has contributed to the myth by promoting vaccine skepticism. Kennedy, now the United States Secretary of the Department of Health and Human Services, has been a vocal critic of vaccine safety and has aligned himself with groups that question the safety of vaccines. In 2005, Kennedy published an article in *Rolling Stone* titled “Deadly Immunity,” in which he raised concerns about the mercury-based preservative thimerosal, used in some vaccines. The article implied that thimerosal was a key factor in the rising incidence of autism in the United States. Kennedy’s article was criticized by public health experts, as it misrepresented the scientific consensus on thimerosal. Thimerosal was removed from most childhood vaccines in 2001 as a precautionary measure, but research has shown that the removal had no impact on autism rates (Gerber & Offit, 2009). Large-scale studies have demonstrated that autism rates are not higher in populations that receive vaccines, and there has been no change in autism prevalence following the removal of thimerosal from vaccines (Kaye et al., 2001). Kennedy’s article, while persuasive

to some, has been debunked by scientific research, and his continued involvement in vaccine skepticism has been described as irresponsible, as it has fueled misinformation and contributed to vaccine hesitancy. Despite the claims made by Wakefield, Kennedy, and other vaccine skeptics, an extensive body of research has thoroughly examined the relationship between vaccines and autism, consistently finding no causal link.

A comprehensive review of studies published in *Pediatrics* in 2014 analyzed over 1,000 studies and concluded that there was no credible evidence to support the claim that vaccines cause autism (Taylor et al., 2014). One of the most compelling pieces of evidence against the vaccine-autism hypothesis comes from studies conducted in populations with high vaccination rates. For example, in 2019, a study published in *Annals of Internal Medicine* found that children who received the MMR vaccine had no higher risk of developing autism compared to those who did not receive the vaccine (Hviid et al., 2019). This study, based on data from Denmark's national health registry, included over 650,000 children and found no association between the MMR vaccine and autism. Diseases like measles, mumps, and rubella have become rare in countries with high vaccination rates, yet the prevalence of autism continues to rise in these same populations, further disproving any link between vaccines and autism (Immunization Safety Review, 2004).

The myth that vaccines cause autism has been thoroughly debunked by decades of scientific research and public health studies. The fraudulent research of Andrew Wakefield and the continued promotion of vaccine skepticism by individuals like Robert F. Kennedy Jr. have contributed to misinformation and confusion, putting public health at risk. However, the overwhelming body of scientific evidence supports the safety and efficacy of vaccines, showing that there is no link between vaccines and autism. It is essential that public health campaigns

continue to combat these myths with accurate, evidence-based information to ensure the health and well-being of future generations.

*Myth 2: Autism can be “Cured.”*

While the understanding of autism has significantly advanced in recent years, one pervasive and harmful myth remains: the idea that autism can be cured. This belief has been fueled by various individuals, including celebrity advocates like Jenny McCarthy, and by the promotion of special diets and alternative therapies. However, there is no scientific evidence supporting the notion that autism can be "cured." On the contrary, modern research emphasizes the importance of early intervention and individualized support to help people with autism thrive, but not to eliminate or "cure" the condition. Autism is not a condition to be cured, but rather one to be understood and supported.

The myth that autism can be cured likely originates from a fundamental misunderstanding of the nature of the condition. Autism manifests differently in everyone, and its characteristics can change over time. However, this does not mean that the core aspects of autism, such as social communication difficulties and repetitive behaviors, can be “cured” through medical interventions or behavioral therapies. The belief that autism can be “cured” often stems from a desire to change a child’s behaviors to meet societal expectations. This claim ignores the reality that autism is a lifelong condition and dismisses the benefits of acceptance and support for neurodiversity.

One of the most promoted myths is the belief that special diets, such as gluten-free or casein-free diets, can cure the disorder. The idea is based on the notion that certain foods, such as gluten (a protein found in wheat and other grains) and casein (a protein found in dairy), exacerbate the symptoms of autism. This hypothesis has gained popularity despite a lack of

scientific support for its efficacy. Several studies have investigated the effects of restrictive diets on autism symptoms. A 2014 systematic review published in *Pediatrics* concluded that there is no credible evidence supporting the idea that gluten-free or casein-free diets improve core autism symptoms (Millward et al., 2008). These findings highlight the lack of scientific validity behind the diet-cure claims and underscore the importance of focusing on evidence-based therapies rather than alternative dietary approaches that can have negative health consequences. Despite these findings, many parents and advocates continue to promote special diets as a treatment for autism.

A promoter of these diets as a cure for autism is a former Playboy model and actress, Jenny McCarthy. McCarthy has publicly stated that her son, Evan, was diagnosed with autism and that he was "cured" through a combination of biomedical treatments, including special diets, chelation therapy (a process used to remove heavy metals from the body), and other unproven methods. Her public statements, particularly those made through her books and media appearances, have caused significant concern among public health experts and advocacy organizations. McCarthy's promotion of unproven treatments has led some parents to adopt dangerous and ineffective therapies, such as chelation, which can be harmful to children (Offit, 2008). Despite McCarthy's claims of her son's "recovery," there is no evidence to support that autism can be "cured." The idea of curing autism through unproven biomedical treatments and special diets is not only scientifically unfounded but also risks stigmatizing individuals with autism, ignoring their strengths, and undermining the concept of neurodiversity.

Even though autism is a lifelong condition with no known cure, individuals can benefit from a wide range of evidence-based interventions. Early intervention educational programs, behavioral therapies, and social skills training have all been shown to help individuals on the

spectrum develop critical skills and achieve greater independence (Reichow, 2012). These approaches are designed to support individuals with autism, not to "cure" them.

### *Myth 3: Autism is Caused by Poor Parenting*

Historically, this has been one of the most harmful myths about autism considering that poor parenting caused autism from a lack of warmth or emotional connection. This idea has been especially rooted in the theory of "refrigerator mothers," a term coined in the mid-20th century that blamed emotionally distant or cold mothers for causing autism in their children. However, modern research has definitively debunked this notion, affirming that autism has biological and genetic origins, not psychological or environmental causes such as poor parenting.

The "refrigerator mother" theory that emerged in the 1940s and 1950s was largely attributed to the work of Leo Kanner, a psychiatrist who was one of the first to describe autism. Kanner's early research proposed that autism was a result of inadequate parenting, specifically blaming mothers who were perceived to be cold, unloving, or emotionally distant (Silberman, 2016). Mothers of autistic children were thought to be emotionally distant, creating an environment where their children could not develop normal social and emotional skills. This idea, while initially popular, was extremely harmful, as it placed blame on parents, particularly mothers, and contributed to feelings of guilt and shame. It also ignored the scientific understanding of autism, causing significant emotional distress for families. The myth of the refrigerator mother persisted for decades despite a growing body of evidence against it.

Since the 1960s, a wealth of research has emerged, debunking the myth that autism is caused by poor parenting. Modern research consistently points to biological, genetic, and neurological factors as the primary contributors to autism. Twin studies, for example, have shown that autism is highly heritable. According to a study by Hallmayer et al. (2011), the

concordance rate for autism in identical twins is about 60%, suggesting a strong genetic component. This genetic predisposition is supported by findings in genetic research, including the discovery of specific genes associated with autism, such as mutations in the *CNTNAP2* gene, which are involved in neural connectivity and language development (Abrahams & Geschwind, 2008).

Neuroimaging studies have also provided insight into the biological underpinnings of autism, revealing differences in brain structure and connectivity. Research has shown that children with autism often have differences in the size and functioning of certain brain regions, such as the amygdala and the cerebellum (Schumann et al., 2004). These findings suggest that autism is not the result of poor parenting but rather of neurodevelopmental differences present from an early age.

The modern understanding of autism emphasizes etiology, genetic, environmental, and neurodevelopmental factors. Certain prenatal factors, such as maternal infections, advanced parental age, or exposure to environmental toxins, may contribute to the risk of autism. The challenges faced by children with autism are not caused by their parents' actions but by a combination of genetic and biological factors that affect development and function.

### **Becoming Aware of Early Signs**

Early identification and intervention are crucial for optimizing outcomes for children with ASD. One of the most effective ways to detect autism is by recognizing developmental delays during the early stages of childhood. These delays can manifest in various areas, including social communication, motor skills, and repetitive behaviors.

#### *Social Communication Delays*

One of the prominent features of ASD is difficulties in social communication, which typically emerge in early childhood. Parents should be attentive to delays or atypical patterns in their child's social interactions, as these can be early indicators of autism. Children with ASD often exhibit challenges in understanding social cues, making eye contact, and developing reciprocal communication skills.

Atypical social behaviors in infants and toddlers, such as avoiding eye contact or not responding to their name being called, may suggest early signs of autism. According to a study by Zwaigenbaum et al. (2005), infants who later received an autism diagnosis were less likely to engage in joint attention (shared focus on an object or event with another person) compared to their neurotypical peers. Parents may notice that their child has difficulty following another person's gaze or pointing to an object to share interest, both of which are critical for later social development.

Additionally, delays in speech development can be an early red flag. While typical children often begin babbling by 6 months and start speaking their first words around 12 months, children with ASD may not develop verbal communication skills in the expected timeframe (Paul, 2008). A lack of interest in communicating through gestures or words, or difficulty using simple words to express needs or desires, may signal a developmental delay related to autism.

#### *Repetitive Behaviors and Restricted Interests*

Another key feature of ASD is the presence of repetitive behaviors or restricted interests, which can be observed as early as infancy or toddlerhood. These behaviors may be particularly evident in play activities. Children with autism often engage in repetitive movements such as hand-flapping, spinning objects, or rocking back and forth. These behaviors might appear as



early as 12-18 months and may be a sign that a child is struggling to engage with the world around them in a typical manner (Johnson et al., 2014).

Restricted interests are another common sign of autism. While it is typical for young children to exhibit focused interests, children with ASD may demonstrate an unusually intense focus on a specific object, activity, or topic to the exclusion of other things (Comparan-Meza et al., 2021). For example, a child with autism may spend an excessive amount of time lining up toys or obsessively watching the wheels of a toy car spin. These behaviors are often repetitive and can be distressing if interrupted.

Parents should also watch for delays in adaptive behaviors, such as difficulties with transitioning from one activity to another or an inability to adjust to changes in routine. These challenges often manifest as tantrums or distress when routines are altered. These behaviors are indicative of the rigidity that characterizes autism and are often evident in children before the age of three (Sadeghi et al., 2022).

### *Delayed Motor Skills*

Motor delays can also be a subtle but important indicator of autism. Although motor skills do not form part of the core diagnostic criteria for ASD, research suggests that delays in motor development are common in children with autism. These motor delays can involve both fine motor skills (e.g., difficulty with grasping objects, drawing, or using utensils) and gross motor skills (e.g., delayed walking, running, or climbing).

In a study by Gernsbacher et al. (2008), children with ASD demonstrated significantly delayed motor development when compared to their typically developing peers, with deficits in both motor coordination and balance. Parents may observe that their child struggles to engage in

activities that require physical coordination, such as riding a bicycle, playing ball games, or performing tasks that require hand-eye coordination, such as stacking blocks or using a spoon.

Moreover, many children with ASD display unusual postures or movements. For instance, they may walk on their toes, exhibit unusual hand movements (such as hand-flapping), or engage in repetitive body movements (like rocking). These behaviors, along with other motor delays, should be considered in conjunction with other developmental concerns to determine whether further evaluation is needed.

### *Sensory Sensitivities*

Sensory processing difficulties are another key sign of ASD. Children with autism often experience heightened or diminished sensitivity to sensory stimuli, including sounds, textures, lights, and smells (Leekam et al., 2007). For example, they may become distressed by loud noises or avoid certain textures, such as specific fabrics or food textures. Some children may seek out sensory experiences, such as arranging objects repetitively or staring at lights.

Sensory sensitivities can be detected as early as infancy. Infants who react strongly to certain textures or refuse to engage in certain activities due to sensory discomfort and might later be diagnosed with ASD. Over time, these sensory sensitivities can interfere with everyday activities, such as eating, dressing, and socializing, making early identification and intervention crucial.

## **Part 2: Necessary Resources, Support, and Services to Raise your Unique Child**

In recent years, there has been a growing recognition of the need for improved services for children with Autism Spectrum Disorder. However, navigating the healthcare system to secure the necessary therapies and medications for children with autism remains a complex challenge for many parents, particularly in rural or underserved areas. In Arkansas, families of

autistic youth face distinct barriers related to access to healthcare services, insurance coverage, and the availability of specialized care. Despite these challenges, various strategies and resources can help parents access the therapies and medications their children need to make sense of our complicated world.

The primary treatment modalities for autism typically include behavioral therapy, speech and language therapy, occupational therapy, and, in some cases, medication to manage co-occurring symptoms such as anxiety or hyperactivity. Behavioral therapies, particularly Applied Behavior Analysis (ABA), is important for treating maladaptive behaviors associated with autism. Speech therapy is crucial for improving communication skills, while occupational therapy helps children develop fine motor skills and adaptive functioning. Medications may be prescribed to address specific symptoms of autism, such as irritability or obsessive-compulsive behaviors. However, obtaining these services in Arkansas can be a challenging process for families, as they often encounter barriers such as limited access to providers, insurance issues, and financial constraints.

Arkansas is a predominantly rural state, which presents unique challenges for parents of autistic children seeking appropriate care. According to the U.S. Census Bureau, approximately 47% of Arkansas residents live in rural areas, and the state's healthcare infrastructure reflects this demographic reality (U.S. Census Bureau, 2020). Rural communities often lack a sufficient number of healthcare professionals, including specialists in autism care. Parents in these areas may have to travel long distances to access services, which can be both time-consuming and costly. The shortage of behavioral health providers, such as licensed clinical psychologists or board-certified behavior analysts, further intensifies the problem (Andrilla et al., 2018).

Another significant barrier for Arkansas families is the availability of insurance coverage for autism-related services. The Arkansas Medicaid program provides health coverage for children, but there are often challenges related to accessing necessary therapies and medications. Many families of children with autism report difficulty obtaining coverage for critical services like ABA therapy or speech therapy. The financial burden of out-of-pocket costs for services that are not covered by insurance can be overwhelming for many families, especially those from low-income backgrounds.

Despite these challenges, there are strategies that parents in Arkansas can use to navigate the healthcare system and access necessary care for their children with autism.

### **Process of Receiving an Autism Diagnosis**

The journey toward an Autism Spectrum Disorder diagnosis begins with the recognition of developmental concerns by the parents or caregivers. Pediatricians typically look for early warning signs such as the ones mentioned in the previous section by conducting developmental screenings during routine visits. Given that the signs of autism can vary widely from child to child, it is critical for parents and healthcare providers to maintain a high level of awareness and to pursue early evaluations when developmental concerns arise. The American Academy of Pediatrics recommends universal screening for ASD at 18 and 24 months of age. If screening results indicate there is a potential for an ASD diagnosis, a comprehensive diagnostic evaluation is warranted. Parents reported in their interviews that they had to wait 6 to 9 months before they could be seen for an evaluation. Their children were finally able to receive a diagnosis by a developmental pediatrician at James L. Dennis Developmental Center (DCC) when they were around three years old.

The diagnostic evaluation is typically conducted by a multidisciplinary team comprising of psychologists, pediatricians, and speech-language pathologists. The evaluation includes an initial consultation with the parents or caregivers to understand more of the child's deficits. After this initial discussion, the team will decide which diagnostic tools will be needed to be used to gauge where the child lands on the spectrum. The child is given tasks to observe their social and communication skills. The examiner will then use the Autism Diagnostic Observation Schedule (ADOS) to assess the developmental level of the child. Other cognitive and language assessments might also be used to help differentiate ASD from other developmental disorders.

James L. Dennis Developmental Center part of UAMS's Department of Pediatrics is the primary center in the state to conduct developmental diagnostic evaluations on children. The center uses an interdisciplinary approach to improve the lives of children and families facing developmental and behavioral concerns. Their clinic offers diagnostic and follow-up care for developmental, learning, and behavioral challenges. Since this is the primary center in the state to conduct developmental diagnostic evaluations on children in the state of Arkansas, many families must wait a long time to be seen. This waiting period can cause a child to lose valuable time in getting access to treatment.

The Community-based Autism Liaison and Treatment Project (CoBALT) trains professionals to screen for autism. CoBALT's mission is to get "the right child to the right services at the right time and place" to allow families quicker access to specialized developmental evaluations. This leads to appropriate diagnosis of disorders and quicker referral for therapy services. CoBALT teams participate in a 2-to-3-day training with the faculty and staff of the DCC who specialize in developmental disorders, especially Autism Spectrum Disorder. They are then educated about autism and developmental delays and given tools to

screen for the disorder. Teams are located around the state and are seasoned professionals who have worked with children for many years. The goal of CoBALT teams is to diagnose developmental disorders that are not autism and to help families find appropriate services in their local community. Many CoBALT teams will refer suspected autism spectrum diagnoses to the DCC for a full autism team evaluation to pinpoint treatment plans. Early recognition and diagnosis are essential for effective intervention and improving long-term outcomes.

### **Proven Treatments for Autism Spectrum Disorder**

Three of the most used therapies for children diagnosed with Autism Spectrum Disorder are ABA therapy, speech-language therapy, and occupational (OT) therapy. Early intervention is key for improving your child's quality of life so they can better make sense of our complicated world. Research has demonstrated that early intervention, particularly before the age of 3, can lead to significant improvements in communication skills, adaptive behavior, and social functioning for children with ASD (Dawson et al., 2010). Starting these therapies early is pivotal for children to begin to develop key skills.

#### *ABA Therapy*

Applied Behavior Analysis (ABA) therapy is a widely known intervention for children with autism. ABA is an evidence-based approach that uses the principles of behaviorism to modify behavior and teach new skills. ABA therapy has been shown to improve social, communication, and behavioral outcomes for children with autism (Gitimoghaddam et al., 2022). One of the key principles used in ABA is operant conditioning which was first pioneered by B.F. Skinner. Operant conditioning is a type of learning that uses consequences such as reinforcement and punishment to modify behavior. Behaviors that the therapist wants to see repeated are followed by a positive consequence (reinforcement), while behaviors that the therapist wants to

distinguish that are not appropriate for societal function are followed by a negative consequence (punishment) to decrease the behavior. Ivar Lovaas was the psychologist that showed that ABA therapy was effective at improving language, social skills, and reducing challenging behaviors in individuals with autism.

I previously worked as an RBT (Registered Behavior Technician) doing ABA therapy with autistic children. An example therapy session was when I was working with a young client, I knew one of his positive reinforcements was the Teenage Mutant Ninja Turtles theme song. We were working on developing communication skills for asking for more using sign language. The BCBA gave him the goal in his treatment plan to sign “more” 5 times and be reinforced for each correct attempt. So, every time he signed “more”, I played the song to reward him for completing the desirable behavior. Some of his attempts he grabbed from my device instead of signing “more” and he received a negative consequence of the song not getting played since he failed to exhibit the desired behavior. Punishment in this scenario was the removal of the desired consequence.

Another aspect of this type of therapy is RBTs following the ABCs of ABA. This is referring to the antecedent, behavior, and consequence. The antecedent in the previous scenario would have been me asking “do you want more music”, the behavior would have been the client signing “more”, and the consequence would have been pushing play on the song to reinforce the desired behavior. All treatment plans are designed by a board-certified behavior analysis (BCBA). They supervise the RBTs in designing and directing what treatment goals the RBTs will need to work on with the child to meet their age and ability level. Each plan is individually tailored to meet the needs of the learner. Treatment goals typically include working to develop communication and social skills, self-care, play, academic, and motor skills. Skills are broken

down into easier steps to encourage client's progress. All progress is monitored by therapists collecting detailed notes during each therapy session. ABA is not a "one size fits all" therapy, so families should ensure that providers are able to establish a meaningful relationship with their child.

### *Speech-Language Therapy*

Speech-language therapy is used to help children with autism to improve in their communication and language skills. I interviewed a senior speech pathology student with four semesters of clinical practicum to learn about her experience of working with young children on the autism spectrum (Student #1, 2025). She shared with me general information of conducting speech therapy with autistic children and a story of a client she worked with that increase her interest to pursue language therapy.

A lot of children with autism come in for language therapy rather than articulation. According to the American Speech-Language-Hearing Association (ASHA), there are five components of language (phonology, morphology, syntax, semantics, and pragmatics). Most children with ASD are needing help with pragmatics. This is a child's ability to understand social aspects of spoken language such as turn-taking in conversation. Something that this student has worked on with autistic children is helping them learn when to voice genuine needs to their parents and caregivers. Other things that this student has worked on with learners with ASD is forming schemas. Learners on the autism spectrum might struggle with schema development due to their unique ways of processing information from their environment. A child might see a dog is furry, on four legs, and has a tail and initially see a cat and think that it is a dog as well since it possesses the same characteristics. The speech therapist can help the child understand that these are both in the same category of animals, but a cat is different than a dog. Speech therapists also



work with autistic youth to understand figurative language. Often when idioms are used in conversation, people with autism tend to take these literally causing confusion. Something that she found interesting was the broad connections children with ASD can make.

She explained a story in which she was discussing a book with a client. The client struggled to remember specific details of the story and understanding figurative language. The client could explain all these aspects of the characters discussed in the book but was unable to point to the character on the page or discuss specifically what happened on the page they were reviewing. He was able to make these broad connections that you should need specific details for, but the detail recall was not there verbally. This example shows how people with ASD can notice broad details and connections that the average person is unable to detect. When working on pragmatic language with this same client, she was able to help him learn how to ask for what he needed. She described how it would be difficult for him to ask for the glue to complete a craft, and no matter how many times she would withhold the glue to challenge him to ask, he was unable to figure out how to complete this verbal exchange.

Challenging the client is essential for the progress to occur. This student explained the important of pushing clients with ASD outside of their comfort zones to provide them with the tools to succeed. Teaching a child on the autism spectrum to embrace failure is key for fostering independency later in life.

### *Occupational Therapy*

Occupational therapy (OT) is valuable for helping children with autism to increasing functioning, independence, and daily life activities. I interviewed a senior student pursuing a career in occupational therapy following their undergraduate education (Student #2, 2025). She explained her experience observing occupational therapy being used with autistic children.

Parents might enroll their children in occupational therapy to help them live more independently and manage physical, sensory, and cognitive struggles. Some of the things that occupational therapists might work on with children on the autism spectrum is helping them to write their name, button up a shirt, and eating with a fork. Something that this student has observed in the therapy setting is how children with ASD have repetitive behaviors like stimming. Occupational therapists can help children learn to adapt to their environment whether it is at school or in the home to participate in doing daily life activities. OT helps autistic children reach developmental milestones after using assessment such as the Peabody test to determine where children are delayed.

According to the American Physical Therapy Association, this test is used for children birth to 5 years to assess gross and fine motor skills to determine motor abilities (reflexes, locomotion, grasping, stationary, object manipulation, and visual motor integration). Occupational therapists can use this to assess which motor activities are appropriate for their age level and where they are delayed developmentally. The therapist's role is to help children develop the skills that are expected for their developmental stage to increase independence. This student also discussed how therapists work to help children on the autism spectrum regulate their emotions.

Stimming is a common symptom observed with those with autism. This can look like a child flapping their hands when they become overstimulated. Children with autism have a difficult time communicating what they are feeling and can sometimes resort to maladaptive behaviors when their nervous system goes into overdrive. To regulate these intense emotions, autistic children will stim as a form of self-soothing. When working with children on the autism spectrum it takes a lot of patience and compassion to help these children live independent lives.

### *Therapy Clinics*

Two local providers of these types of therapies include *Pediatrics Plus* and *Easterseals*. I have worked at Pediatrics Plus (Peds) for two different summers in two different roles. Pediatrics Plus is a developmental preschool and therapy center that have multiple locations throughout the state and one in Texas. Peds opened their first clinic in Conway, AR in 2003 and now has ten locations. Within the developmental preschool which I worked as an assistant preschool teacher the summer of 2021, young learners are offered year-round preschool curriculum, a low teacher to child ratio, therapy service during the school day, full Medicaid program, and transportation upon request (Pediatrics Plus, 2025). Therapy services that are offered include ABA, Occupational, Physical, and Speech (Peds is where I previously worked as an RBT as well). The vision of Pediatrics Plus is “Empowering Children to Conquer Their World”. They do a wonderful job to train their staff to make this vision become a reality.

Easterseals is another organization dedicated to making a difference to empower people to live independent, full lives by providing services to adults and children with disabilities. There are 11 locations within Arkansas that provide early intervention, childcare, and structured therapies to help people with ASD thrive. They are dedicated to help people with autism build communication skills, self-advocacy, and meaningful connections through creating personalized treatment plans that foster lifelong success and personal autonomy (Easterseals, 2025). After speaking with an individual that worked at Easterseals for five years, she expressed her enthusiasm of the supportive work environment and how they helped her son progress in his speech (AR Parent, 2025). She stated that when her son started at Easterseals at around the age of 4 or 5 he only knew about 5 words besides his shapes and colors. Now as a young adult, he can communicate all his needs verbally at his age level. This parent also highlighted on how

Easterseals was wonderful in helping her son transition from their preschool to public school. This shows exactly how dedicated Easterseals is to advocate for people with disabilities. They truly care about the individual's well-being.

### *Prescribed Medications*

Risperidone and Aripiprazole are two medication that are commonly used to treat a few of the symptoms that are associated with Autism Spectrum Disorder. A sought the advice a pharmacist to discover more about these medications. Risperidone (Risperdal) is an antipsychotic that is approved by the FDA for treating irritability associated with autism in children ages 5 to 17 years of age (Pesaturo, 2009). Risperdal is commonly used to treat schizophrenia and mania associated with bipolar I disorder in adults. Symptoms that this medication is used to treat for autism include self-injurious behavior, aggression, hyperactivity, and inattention. Short term studies (six months or less) have shown risperidone to improve disruptive behavior in children ages five to 17 (Shea et al., 2004). Risperidone is not a cure for the condition of autism but helps to alleviate symptoms associated with the disorder.

Aripiprazole is another medication sometimes used to treat disruptive behaviors associated with autism. Aripiprazole (Abilify) is an antipsychotic used to treat the same category of disorders as Risperidone. It was approved by the FDA in 2009 to treat irritability associated with autism in children ages 6 to 17. Two randomized controlled trials used to examine the use of Abilify for eight weeks in 31 children/adolescent with ASD found that significant improvements in irritability, hyperactivity, and repetitive actions (Hirsch & Pringsheim, 2016). Both medications have been found to be effective in managing irritability and aggression in children with ASD. These are also the only two medications approved by the FDA for children with autism. It is important to talk to your medical provider to decide which medication best fits

the needs of your child. Aripiprazole along with risperidone are most effectively used for a short-term and alongside therapeutic intervention. With appropriate support and resources, children with autism can develop the skills needed to lead fulfilling lives.

## **Community Resources**

One of the most important aspects for parents to better understand their child's diagnosis is to foster community through interaction with other parents and getting involved with state and global organizations. There are many local organizations parents can connect with to better understand their unique child. *Partners for Inclusive Communities* (Partners) is an off-campus outreach program housed within the College of Education and Health Profession as part of the University of Arkansas. This is the central hub in Arkansas connecting all resources available to parents raising a child with disabilities together. Funding from the Administration on Community Living established Partners as the University Center for Excellence in Developmental Disabilities Education, Research and Service (UCEDD).

There at least one UCEDD in each of the 50 state and all 5 territories to collaborate with others to reduce barriers to create an inclusive community for people with developmental disabilities. UCEDDS are supported by the national Association of University Centers on Disabilities (AUCD), a support network that promotes the quality, life, health, and well-being of people with disabilities. UCEDDs partners with various organizations, the state council on developmental disabilities, and the state protection and advocacy agency. In Arkansas these are the *Arkansas Governor's Council on Developmental Disabilities* and *Disability Rights Arkansas*.

Partners thrives to develop an inclusive community within Arkansas in which everyone is valued and actively involved in society. They believe that disability is a natural part of the human experience, and that disability should not take a person's rights away to be a fully

functioning member of society. Partners includes interdisciplinary training for graduate students pursuing a career in health-related professions, provides community services (training, technical assistance, and services) to people with disabilities, conduct research to improve the access to inclusive communities, and disseminate information through websites, social media, and advertisement (Partners, 2025).

As part of the Partners program is the Partners Community Advisor Committee which is made up of individuals with developmental disabilities, family members, and representatives of disability-related organizations. The committee's purpose is to ensure that Partners' policies and projects reflect their mission. Partners have many projects across Arkansas that are designed to create a more inclusive community. I will highlight on a few of these projects.

The *Arkansas Autism Partnership* (AAP) is a statewide Medicaid waiver program that offers one-on-one intervention within the home (I will discuss this more in the *Gaining Coverage* section). The *Arkansas Autism Resource and Outreach Center* (AAROC) is a non-profit organization started by parents to support families raising children on the autism spectrum. The center provides training, technical assistance, and support to parents to empower them to have direction and hope with raising their unique child (AAROC, 2025). Their goal is to support parents through hosting connection events, technical assistance, education/training, and participating in awareness and advocacy activities. They can meet the needs of parents by offering responsive, individualized, and ongoing support through connecting families who are facing the same struggles. They aim to help parents regain hope after feeling helpless when dealing with the unknown of receiving an autism diagnosis. The last project I would like to highlight on is the *Leadership Education in Neurodevelopmental Disabilities* (LEND) training program. This is a federally funded interdisciplinary training program for students from

disciplines serving children with developmental disabilities and in-service training for professionals in the field. The LEND program focuses on developing research, assessment, training, intervention, and resources for people with neurodevelopmental disabilities and their families. LEND trainees are chosen across graduate-level programs in four universities in Arkansas and Mississippi. The mission of the Arkansas LEND program is to develop the next generation of leaders in the disability field to improve the lives of children with neurodevelopmental disabilities.

### **Strategies for Gaining Coverage for Autism Treatment and Diagnosis**

Parents should be aware of the eligibility requirements for Medicaid, as some children may need to meet specific criteria related to income or disability. There are many state-regulated plans that provide meaningful coverage for autism. According to Autism Speaks (2025), Arkansas enacted the HB 1315 bill that provides health insurance coverage for Autism Spectrum Disorder in 2011, Act 196 became effective on October 1, 2011. This Act requires group health insurance plans to cover services for autism diagnosis and treatment for child up to age 18, with a maximum benefit of \$50,000 per year for ABA therapy. There are specific services that are covered by law these include diagnostic assessments, therapeutic care, medications, and equipment such as augmentative and alternative communication (ACC) device. There are several different Medicaid programs available in Arkansas that individuals with autism might be eligible.

Medicaid is a joint federal and state program that provides health insurance for people with limited income and resources. *ARKids* provides coverage for children up to age 19 who meet criteria outlined by the Social Security Administration (SSA) to receive Supplemental Security Income (SSI). SSI is a federal assistance program that provides financial support to help

families caring for children with disabilities. Since the SSA list autism as a disability, children with an ASD diagnosis qualify for SSI. The *Tax Equity and Fiscal Responsibility Act (TEFRA)* is a category of Medicaid that provides in-home care to children with a disability whose parents do not meet SSI income requirements. This program aims to keep children in the home rather than in an institution. The *Autism Waiver* or *Arkansas Autism Partnership (AAP)* provides coverage for children ages 18 months through five years with an autism spectrum disorder diagnosis. Children must enter the program before their 5<sup>th</sup> birthday but can continue to receive services up to their 7<sup>th</sup> birthday. This waiver provides evidence-based intervention for 20 to 25 hours per week within the home. This program is designed to provide early, intensive treatment to improve communication, socialization, self-care, and behavior. To determine if your family meets requirements for one of these programs, you can consult your primary care provider (PCP) or *Disability Rights Arkansas*.

### **Educational Support**

Getting educational resources and school support can be a difficult task for parents raising a child with an autism spectrum diagnosis. Under the federal *Individuals with Disabilities Act (IDEA)*, children with autism qualify for Individual Education Plans (IEP) which ensure access to special education services.

An IEP is a legally binding agreement between the school district and parent that outlines a child's specific learning needs, while also highlighting specific academic goals. Families must meet with an IEP team to obtain special education services for their child. Arkansas law states that any child between the ages of 3 and 21 who meet the definition of "a child with a disability" and because of that disability needs "special education and related services" is eligible for an IEP



(Arkansas Law Help, 2025). Education services are available to children at no cost to their parents until they reach the age of 21.

If a parent wants to get their child an IEP, they will need to send a special education referral to the school principal along with a copy of the letter to the special education coordinator for the school district. Once a referral is sent, the school district must schedule a referral conference within seven days and be held no later than 21 days from the date the referral was made. After an IEP is secured, an IEP team will meet to review the child's progress at least once a year. The school district is required by law to reevaluate your child every three years to see if they are still eligible to receive services.

If a parent is needing assistance with understanding the educational process for students with disabilities under IDEA, they can contact *Disability Rights Arkansas* (DRS). DRS is a federally funded nonprofit organization that advocates for people with disabilities and implements protection programs within the state. This organization helps to protect the civil and legal rights of people with disabilities and help parents secure services to help their child flourish. Their vision is that those that live in Arkansas with disabilities will be treated as equal members of their communities and be empowered to live with self-determination. Services that are offered include information on referrals, advocacy, litigation, investigation of institutional abuse, and monitor residential facilities (DRA, 2025). Their services are readily available to anyone with disabilities in Arkansas.

### **Strategies to Create Routine in the Home**

Parenting a child with Autism Spectrum Disorder presents unique challenges and requires specialized approaches to meet the child's developmental, behavioral, and communication needs. Research suggests that family involvement is essential for the success of interventions (Lovaas,

1987). Children with autism often thrive in settings with clear routines, as they may struggle with transitions or unpredictable events. Children with ASD benefit from consistent routines that reduce anxiety and support emotional regulation.

In the household, parents can establish a daily routine with specific times for meals, play, learning activities, and rest. Visual schedules, which use pictures or symbols to represent activities, are a powerful tool in helping children with autism understand what to expect next. This visual support enables the child to predict transitions, increasing their sense of security and reducing instances of behavioral challenges.

Parents supporting their unique child through creating routine is the foundation on which children on the autism spectrum can use their unique abilities to bring order to their beautiful way of seeing the world. While every child with autism is unique, there are evidence-based strategies that have proven to be effective in addressing the core symptoms of ASD. These strategies are based on ABA techniques that can be adapted for home-use to enhance their child's development through establishing a structured and predictable environment.

### *Discrete Trial Training (DTT)*

Discrete Trial Training (DTT) is a structured technique within ABA that breaks down complex tasks into smaller, more manageable components. This method is based on a cycle of instruction, response, and feedback. DTT is especially effective for teaching communication skills, social skills, and daily living activities to children with autism. For example, a parent might use DTT to teach their child how to identify common objects, such as "cup" or "spoon." Each trial includes a clear instruction, a prompt to elicit the correct response, and positive reinforcement when the child provides the correct answer. This approach can be applied in the home with frequent, short practice sessions, making it an excellent tool for daily learning.

### *Prompting and Fading*

Prompting and fading are key techniques within ABA used to encourage the child's independent performance of desired behaviors. Initially, when teaching a new skill, parents use prompts—verbal, physical, or visual—to guide the child's behavior. For example, if a child is learning to put on their shoes, a parent might physically guide the child's hands to help them complete the task. Over time, the prompt is gradually faded, reducing the level of assistance as the child becomes more capable of performing the task independently. This technique helps children with autism gain confidence and independence, and it can be applied in a variety of everyday activities.

### *Reinforcement*

Reinforcement is another critical concept in ABA that parents can use to shape behavior. Positive reinforcement involves providing a reward when a child demonstrates a desired behavior, thereby increasing the likelihood that the behavior will be repeated in the future. For example, if a child with autism successfully completes a task, such as saying "please" before asking for a toy, the parent can provide praise or a preferred activity as reinforcement. The key to effective reinforcement is ensuring that it is motivating for the child and provided immediately following the desired behavior. This strategy encourages the child to continue engaging in positive behaviors while decreasing maladaptive ones.

My hope is through information provided in this thesis that Arkansas parents can best access the resources that are available to them to help raise their child in a way that brings out their unique way of seeing the world.

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