

**Disparities of DT:**

**An Analysis on Access and Engagement of Developmental Therapy in Knoxville, Tennessee**

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### **Abstract**

Developmental therapy (DT) within early intervention (EI) services is an interdisciplinary approach that plays a critical role in supporting children five years of age and younger—especially those with autism spectrum disorder (ASD)—addressing developmental, communication, and behavioral delays by assisting families with routine and problem-solving strategies. Several established early intervention and developmental therapy providers in Knoxville, Tennessee specifically target families affected by these delays, providing interdisciplinary support aimed at improving developmental outcomes. Numerous studies have reported the correlation between poverty and socioeconomic disparity on social vulnerability, emotional development, and communication skills—several factors that contribute to delays focused on by EI. In Knoxville, Tennessee, disparities in income and disability between zip codes pose a complex ethical and historical dilemma, largely due to the lingering effects of redlining practices from the 1930s onward. Despite the correlation between low socioeconomic status and need, there is still a lack of access to developmental therapy and engagement in services, contributing to a cycle of inequity and delayed support. Therefore increasing access to developmental therapy in Knoxville and expanding awareness while emphasizing primarily low-income neighborhoods is crucial. Outreach initiatives, free resources, and trusted representatives would seek to recognize and address the systemic barriers that hinder access to essential services, advocating for a more inclusive and accessible early intervention framework that serves the needs of all children and families, regardless of socioeconomic background.

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The first five years of a child's life are crucial in every aspect of development, health, and well-being. These pivotal years are heavily impacted by the resources, and accessibility of those resources, that are available to the child's caregivers. Access and engagement with appropriate support influences long-term outcomes. Early intervention services are set in place to support caregivers during these early years of development. Developmental therapy (DT) is a cornerstone of these early intervention services and primarily targets children diagnosed with autism spectrum disorders (ASD), children with traits of ASD, and children with other risk factors such as premature birth, fetal alcohol syndrome, siblings with ASD, intellectual or developmental disabilities, behavioral symptoms, and more. Through an interdisciplinary approach, DT targets developmental, behavioral, and communication challenges by setting goals and evaluating family routines. Despite the proven benefits of early intervention and developmental therapy, access and engagement are not equitable across socioeconomic lines. This is especially detrimental since lower socioeconomic status is associated with higher risks of behavioral problems, developmental delays, and caregiver struggles. Due to these systemic risk factors and the barriers to DT access, there is a need for research and intervention in the Knoxville, Tennessee community.

### **DT Defined**

Early intervention serves and supports young children under the age of five who are evaluated to be at risk for developmental delays, with or without a formal diagnosis. Developmental therapy is a relational, family centered, routines-based intervention approach to therapy that supports young children and their caregivers. The therapeutic approach centers on

family goals as outlined in an Individualized Family Service Plan (IFSP) (Tennessee Department of Disability and Aging). These goals are targeted in the context of routines-based interventions in the home, school, and community that the child is regularly in. A typical session involves asking the caregiver about any progress or problems since the last visit, an evaluation of family goals and which goals the caregiver wants to focus on, brainstorming strategies for routines-based interventions, and possible implementation of these interventions through strategies like modeling, direct instruction, caregiver coaching, and reference sharing. The session may also include reflective questioning, reevaluation, or observation. The comprehensive goal is to empower the caregiver and support the child through their cognitive, behavioral, emotional, and physical development. The interdisciplinary approach results in the ability to work on language skills while also targeting a goal of teeth brushing, for example. Among its many strengths, the most impactful are early implementation and its interdisciplinary nature.

Utilizing developmental therapy to address autism spectrum disorder and possible correlated delays supports young children while still affirming disability. Autism spectrum disorder is a neurodevelopmental disorder that has been growing in awareness and prevalence. As the nature of the disorder is a spectrum, it is difficult to ascribe one treatment plan or intervention that suits each person's unique needs. Therefore, an interdisciplinary approach from a young age helps adapt intervention accordingly. While early intervention services range from speech therapy, to occupational therapy, to play therapy, and much more, developmental therapy combines each of these disciplines and centers family goals and programming in each home. These services lead to positive outcomes and significant developments in areas of cognitive ability, daily living skills, and motor skills (Daniolou et al., 2022). Not only does this intervention have benefits for children with delays, it also empowers parents which reduces the

child's maladaptive behaviors and decreases parent stress (Deb et al., 2020). The therapeutic approaches and the generalizability of developmental therapy make it an asset for a wide range of children and family units.

### **DT Disparities**

While early intervention and developmental therapy are beneficial to many families, there are several factors that disproportionately affect low-income families making access and implementation more important but also more difficult. Despite the clear need, families in low-income communities may have limited awareness of early intervention programs, logistical problems such as transportation or childcare for siblings, a lack of representation in patient care, and underinvestment in healthcare services in the area (Currie & Thomas, 1995). These barriers compound the existing correlation between low socioeconomic status and developmental delays.

Not only are underserved communities less likely to engage in services, they are more likely to need services. Children living in poverty are at a greater risk for developmental delays, chronic stress, lack of early stimulation, deficits in language, and reduced parent-child interaction (Justice et al., 2019). While 40% of parents report concerns about delays, only 5% enroll in services, with minority families at an even lower enrollment rate (Marshall et al., 2016). Cumulative disadvantage happens when these same children also face inequities such as food insecurity, unstable housing, and under-resourced schools (Noble et al., 2015). Each of these factors unfairly impacts cognitive, social, emotional, and even physical development, especially when they are experienced in the critical period between birth and five years of age (Justice et al., 2019). Families who experience these obstacles, in some cases, turn to other forms of intervention such as medication, institutionalization, or may neglect the child or problem

altogether. Addressing socioeconomic disparities is vital for social justice and responsibility as well as individual child and family well-being at a much smaller scale.

### **DT Disparities in Knoxville, Tennessee**

Common themes of inequity and health disparities echo throughout cities in the United States and typically link to systemic injustices such as redlining and discrimination. Redlining has shaped the socioeconomic conditions of Knoxville, Tennessee starting with practices in 1930 that aimed to spark “Urban Renewal” in east Tennessee (Taylor, 1974). While on a national level, White Americans shifted to consider suburbs as ideal, local cities also faced impacts. This shift to suburbanization was exacerbated by the Federal-Aid Highway Act of 1956 in which development was encouraged and socioeconomic lines were drawn effectively reinforcing and formalizing racial and economic divisions (Jackson, 1985). The economic consequences of this shift disproportionately displaced and affected Black neighborhoods and communities, oftentimes completely destroying or physically splitting them with a highway. This pattern hit Knoxville’s population resulting in redlining practices that devalue the homes and communities that historically housed Black Tennesseans (Victoria, 2015). This systemic practice has left a mark on the landscape of Tennessee and continues to impact minority and low-income communities disproportionately. Issues of social injustice such as redlining and urban renewal pose a threat against equity and infiltrate other aspects of living such as access to healthcare.

Historic redlining practices and systemic separation in Knoxville leaves underfunded communities and under-supported families to aid themselves with the limited resources and access that they may or may not know about. The legacy of urban removal manifests in the gentrification of Knoxville today and the discriminatory themes that make health care such as early intervention hard to utilize. This demonstrates the need for targeted outreach and increased

engagement in services for communities still impacted by injustices. The socially responsible concern is to address the systemic issues and the outcomes of those issues such as cumulative disadvantage and developmental difficulties (Noble et al., 2015). Tackling the gap in access to developmental therapy in Knoxville is one local way of accomplishing this goal.

### **Proposed Outreach Strategies**

Due to its strengths and benefits, there is an ethical responsibility to ensure equal access and improved engagement with early intervention services. Utilizing trusted community spaces for outreach is vital. Partnering with pediatricians, churches, and schools in distinct target communities helps families who wouldn't typically engage with resources hear about them from trusted sources. An important step is first educating these partners on what DT is and how their patients, patrons, and students can benefit. The use of culturally sensitive flyers, brochures, and pamphlets may also reach families that would not otherwise hear about services or choose to engage.

Another outreach strategy that could reach underserved neighborhoods is a physical representative that specifically serves the families in the community. This representative would serve as another trusted source that is permanently stationed in the area of most need. The stability of this representative would encourage collaboration with other community members and full family units so everyone is empowered. These outreach initiatives have the possibility to serve as a bridge between families, communities, and programming. Increasing public awareness and reevaluating the accessibility of therapy ensures children impacted by systemic injustice are receiving any and all services they could possibly benefit from. While improvements have been made including telehealth and flexible scheduling options and state funding, these more individualized strategies target populations that are the most vulnerable.

## **Summary and Implications**

Developmental therapy plays an essential role in early intervention by supporting the holistic development of young children, especially those with autism spectrum disorder or at risk for delays. Its interdisciplinary, family-centered model addresses not only the child's immediate developmental needs but also empowers caregivers—making it particularly beneficial for families facing adversity. However, systemic barriers such as socioeconomic disparities and historical injustices like redlining continue to limit access to these critical services in places like Knoxville, Tennessee. The children and families who would benefit most from developmental therapy are often those least likely to access it.

Addressing this inequity requires targeted, community-based outreach strategies—including collaboration with trusted institutions, culturally sensitive educational materials, and sustained presence in underserved neighborhoods. These approaches can help dismantle the barriers to care, increase early identification, and ensure that all children and caregivers, regardless of background, receive the support they need during their most formative years. By expanding access and awareness, especially in inequitable areas like Knoxville, communities can move towards a more inclusive intervention system that truly serves as many children and families as possible. Addressing disparities in access and engagement in early intervention is not only a matter of child development, but of social justice, equity, and systemic accountability.

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### **Author's Anecdote**

This capstone project serves as a supplemental addition to the hands-on work I completed in HDFS 480 Practicum: Community Outreach. Throughout the Fall 2024 semester I experienced 420 hours of shadowing and volunteering at University of Tennessee Health Science Center Pediatric Language Clinic. I worked directly under developmental therapists, speech therapists, grad students, and occupational therapists to observe and conduct home-visit and clinic-based sessions for children under five and their caregivers. Sitting across from caregivers, entering classrooms, and interacting one-on-one with children gave me a new perspective on development, therapy, autism spectrum disorder, and caregiver coaching. This supplemental thesis serves to add depth to my experience and reflect on access to and engagement with these services in my community.