

# Navigating Inclusive Practices: Experiences of Families with Neurodiverse Learners in Early Childhood in the Sarah Baartman District, Rural Humansdorp, South Africa

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Received: 20 March 2025

Revised: 23 June 2025

Accepted: 27 June 2025

Published: 00 July 2025

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DOI: 10.38140/ijrcs-2024.vol7.1.06

**Abstract:** Inclusive early childhood education for neurodiverse learners in rural Eastern Cape is under-researched, especially regarding family, educator, and community roles amid resource constraints. This study explores the lived experiences of families with neurodiverse children and examines how inclusive practices can be co-constructed through collective agency within a rural context. Employing Participatory Action Research (PAR) within a transformative paradigm, the study is guided by Cultural-Historical Activity Theory (CHAT) to investigate how social, cultural, and historical factors shape family engagement with early education. Participants were purposefully selected and included all three early childhood educators at a local Early Childhood Development (ECD) centre, the Foundation Phase Head of Department at the nearby full-service school (to which the ECD centre serves as a feeder), three parents of neurodiverse learners (from five identified, with three consenting), and two community volunteers supporting the centre. Story circles provided dialogical spaces for participants to reflect on challenges and collaboratively develop contextually relevant, culturally responsive strategies. Key findings underscore the critical role of community support, the detri-

mental impact of limited resources on early intervention, and the influence of cultural beliefs on inclusive practices. The study highlights the potential of community-driven approaches that leverage local knowledge and relationships to enhance inclusion. This research contributes to the discourse on inclusive education by centring families and communities as active agents in shaping equitable, locally grounded practices. It advocates for stronger collaboration among stakeholders to promote the educational rights and holistic well-being of neurodiverse learners in rural settings.

**Keywords:** Neurodiverse, early childhood development, activity theory, transformative paradigm.

## 1. Introduction

Early childhood education (ECE) in South Africa's rural communities faces persistent and complex challenges, shaped by systemic inequities, socio-economic deprivation, and limited access to quality resources and infrastructure (Mahadew, 2024; Matjokana, 2023). These difficulties are exacerbated for neurodiverse learners—children whose cognitive functioning and sensory processing diverge from neurotypical norms due to conditions such as autism, Attention Deficit Hyperactivity Disorder (ADHD), and dyslexia (Singer, 2017; Kehinde et al., 2023). In rural contexts like the Eastern Cape Province, where educational infrastructure is frequently inadequate and inclusive education policies are implemented unevenly, families of neurodiverse learners often struggle to secure the necessary support for their children's development and inclusion (Ngwenya & Dlamini, 2024; Johnson & Pillay, 2023).

While urban areas have made some progress in advancing inclusive education—evidenced by better-funded ECD infrastructure and more systematic implementation of inclusive policy frameworks (Madyibi & Bayat, 2021; Obiakor et al., 2024)—rural areas remain significantly underserved. These disparities are not merely logistical but also deeply structural, often reinforced by historical neglect and policy inaction (Matjokana, 2023). The absence of early screening, the presence of underqualified

**How to cite this article:**

Geduld, D., & Majola, M. (2025). Navigating inclusive practices: Experiences of families with neurodiverse learners in early childhood in the Sarah Baartman District, Rural Humansdorp, South Africa. *Interdisciplinary Journal of Rural and Community Studies*, 7(1), a06. <https://doi.org/10.38140/ijrcs-2024.vol7.1.06>

educators, and limited access to specialised services in rural settings exacerbate educational exclusion and disproportionately impact neurodiverse children (Mahadew, 2024; Ndlovu, 2023).

This exclusion places considerable pressure on families and local communities, who are often compelled to bridge systemic gaps without formal support. Parents, caregivers, educators, and volunteers in rural settings play critical yet under-recognised roles in advocating for and implementing inclusive practices (Jojo, 2024; Howard, 2021). These grassroots efforts are often shaped by cultural perceptions of disability, stigma, and the community's broader social fabric (Hersh et al., 2024; Chauke, 2021).

Despite these realities, the lived experiences and strategies of rural families navigating inclusion in early childhood contexts remain underexplored in South African research (Matjokana, 2023; Johnson & Pillay, 2023). This study aims to address this gap by examining how families of neurodiverse learners in a rural Eastern Cape community experience, understand, and contribute to inclusive education practices. By centring their voices and drawing on community-based insights, the research aligns with recent calls for participatory, locally embedded approaches to inclusive education that recognise the value of culturally responsive practices (Ngwenya & Dlamini, 2024; Obiakor et al., 2024; Howard, 2021). In doing so, it seeks to inform contextually grounded, community-driven models that promote inclusion and equity within rural early childhood education systems (Jojo, 2024; Kehinde et al., 2023).

### **1.1 Neurodiversity and its relevance in early childhood settings**

The concept of neurodiversity recognises natural variations in human cognitive functioning and behaviour, encompassing conditions such as autism, ADHD, and dyslexia. Rather than perceiving these differences through a deficit lens, the neurodiversity paradigm affirms them as integral to human diversity (Cummings & Miller, 2019). In early childhood education (ECE), embracing neurodiversity necessitates the recognition of the diverse ways in which children learn, communicate, and interact, as well as the adaptation of educational practices to reflect these diverse needs—particularly during formative years when early intervention can significantly shape long-term developmental trajectories.

However, in rural South African contexts, the pursuit of inclusive ECE for neurodiverse learners remains fraught with challenges. Limited access to specialised educators, a shortage of diagnostic and therapeutic resources, and infrastructural inadequacies obstruct the creation of supportive learning environments (Lombard & Goudie, 2020). Furthermore, cultural beliefs and social stigma associated with neurodivergent behaviours may further marginalise these learners and their families (Murphy, 2023). These structural and cultural barriers reinforce exclusion and often result in families feeling isolated, misunderstood, or unsupported in their efforts to advocate for their children.

Despite these constraints, many rural families and communities demonstrate remarkable resilience, frequently drawing on indigenous values of care, interconnectedness, and collective responsibility to support neurodiverse learners (Ngwenya & Dlamini, 2024; Ndlovu, 2023). Research has indicated that rural communities often mobilise informal support systems and cultural resources to address gaps left by systemic exclusion (Matjokana, 2023; Johnson & Pillay, 2023). This study explores how such community-based assets—including informal networks, educators, and local volunteers—can be harnessed to foster more inclusive early childhood educational practices, particularly where formal systems remain inadequate (Kehinde et al., 2023; Obiakor et al., 2024). By centring the voices of families and key community actors, the research aligns with increasing calls to transcend deficit-driven narratives and adopt educational models that are inclusive, culturally responsive, and grounded in the lived realities of rural life (Howard, 2021; Jojo, 2024). These approaches not only affirm the dignity and agency of local stakeholders but also contribute to sustainable and context-specific strategies for inclusive education.

## 2. Cultural-historical Activity Theory as the Theoretical Framework

Cultural-Historical Activity Theory (CHAT), rooted in the foundational work of Vygotsky, Leontiev, and Luria, provides a powerful lens for understanding how human learning and development are shaped by social, cultural, and historical contexts (Sannino & Engeström, 2018). Central to CHAT is the notion that human action unfolds within activity systems—collective, goal-directed practices mediated by tools, rules, community norms, and the division of labour (Engeström, 2014; Foot, 2014). This framework is particularly pertinent in rural South Africa, where efforts to support neurodiverse learners occur within deeply embedded socio-cultural structures.

One key principle of CHAT is the use of activity as the unit of analysis, shifting the focus from isolated individuals to collective human practices. This approach has proven useful in educational research exploring how communities collaborate to achieve shared goals (Foot, 2014). Another principle is mediation, which highlights the role of cultural tools—such as language, artefacts, and local norms—in shaping action and understanding. For instance, Hite, Childers, and Hoffman (2025) applied CHAT to explore how extended reality technologies mediate socioscientific learning in museums, underscoring the theory's relevance across diverse settings.

CHAT also emphasises historicisation, recognising that present practices are influenced by broader historical and socio-political forces—an aspect that is highly relevant in rural South Africa, where education is shaped by enduring legacies of apartheid and systemic inequity. Moreover, the theory views contradictions—such as tensions between inclusive policy and actual classroom practice—as drivers of transformation (Sannino & Engeström, 2018). These tensions reveal the creative strategies families and educators use to navigate institutional constraints.

This study applies CHAT to examine how families of neurodiverse learners in a rural Eastern Cape community co-construct inclusive learning experiences through everyday adaptations and support networks. By foregrounding the relational and mediated dimensions of inclusion, the research offers insight into how historical marginalisation, cultural values, and local resilience interact to shape both challenges and opportunities for inclusive early childhood education.

To deepen the theoretical framing provided by CHAT, this study draws on the activity system model to structure the analysis of how inclusion is practised and experienced in a rural South African context. The activity system provides a heuristic for examining the interconnected roles, tools, community influences, and socio-cultural rules that mediate the actions of various stakeholders involved in supporting neurodiverse learners. By mapping these elements, the study captures the complexity and relationality of inclusive education as it unfolds on the ground. Table 1 below outlines the core components of the activity system used in this study, adapted from Andrews et al. (2021), and illustrates how these elements manifest in the lived realities of families, educators, and community members working towards inclusion in early childhood settings.

**Table 1:** *Elements of the Activity System for This Study (Adapted from Andrews et al., 2021, p. 1512)*

Element	Description	Examples of Element
<b>Subject</b>	The actions of individuals or groups are being analysed in the activity system	This study's primary subjects were teachers, parents, and caregivers of neurodiverse learners. These individuals were at the forefront of navigating and implementing inclusive education practices in rural South African settings
<b>Object</b>	The central goal or motive that directs the activity and connect actions to the overall activity	The object was to enhance teachers' and parents' capacity to support neurodiverse learners, focusing on improving access to inclusive education and fostering meaningful participation in early learning environments.

<b>Tools/Artifacts</b>	Physical and intellectual tools that mediate the activity and facilitate participation.	Tools included physical resources (assistive devices, visual aids, communication boards), and community support networks. Language, (including sign language) was crucial for Inclusion.
<b>Community</b>	A collection of actors engaged in collective activity, sharing a common interest in the object.	The community involved mainstream schoolteachers, early childhood development (ECD) practitioners, inclusive, church groups, and local community organisations providing support services.
<b>Division of Labour</b>	The distribution of roles, tasks and responsibilities among actor within the system	Roles were divided among parents (daily caregiving, advocating for services), specialist teachers (providing individualised support), community members (peer support and advocacy), and schools (creating inclusive learning environments).
<b>Rules</b>	The explicit and implicit regulations, norms and expectations guiding actions within the activity.	Rules included government policies on inclusive education (e.g., White Paper 6 on Inclusive Education), social norms around disability, and cultural practices that shaped how neurodiverse learners were perceived and supported.
<b>Outcome</b>	The intended results of the activity system.	The desired outcomes were increased parental engagement in inclusive education, improved teacher capacity to support neurodiverse learners and ultimately, enhanced learning, outcomes and social integration for neurodiverse children

Following this framework, it is essential to recognise that while teachers and parents are central figures, children with neurodiversity are also pivotal, as their specific needs shape and direct the system’s adaptations. Intellectual tools such as workshops and professional development sessions equip stakeholders with the knowledge to better support inclusive practices. Physical artefacts—including adaptive seating and sensory resources—further facilitate learning and participation. The broader community, underpinned by the ethos of ubuntu, reinforces collaboration and mutual support, which are particularly vital in under-resourced settings. However, the regulations that govern the system often reflect unresolved tensions between national inclusive education policies and prevailing local cultural beliefs regarding disability. These contradictions can impede coherence but also present opportunities for change. Ultimately, this activity system framework permits a nuanced examination of how inclusive education is co-constructed, contested, and transformed in rural early childhood education contexts.

### 2.1 Neurodiversity in early childhood education

Neurodiversity, as a concept, expands traditional understandings of human development by recognising neurological differences—such as autism, ADHD, dyslexia, and others—as natural and valuable variations in cognition and learning (Murphy, 2023; Silberman, 2015). Rather than pathologising these differences, the neurodiversity paradigm reframes them as part of the broad spectrum of human diversity. This shift from a medical-deficit model to one of recognition and inclusion has significant implications for early childhood education (ECE), particularly in contexts marked by limited resources and deep-seated educational inequalities.

In inclusive early childhood environments, neurodiversity challenges educators to design responsive curricula and adopt flexible teaching practices that honour children's diverse ways of engaging with the world (Armstrong, 2020; Madyibi & Bayat, 2021). However, the reality in many rural South African ECE settings is that standardised curricula dominate, often assuming uniformity in learning pace and style (Mahadew, 2024; Matjokana, 2023). These settings frequently lack the infrastructure, teacher training, and systemic support needed to accommodate neurodiverse learners (Conkbayir, 2021; Landsberg et al., 2020). The result is often exclusion, misdiagnosis, and stigmatisation – outcomes that carry serious academic, emotional, and social repercussions (Dunst et al., 2020).

However, neurodiverse children also bring distinct strengths to educational environments. Studies highlight that many possess advanced pattern recognition, memory, or problem-solving abilities (Singer, 2017; Heung et al., 2024). In under-resourced rural contexts, these strengths represent untapped potential that, if recognised and nurtured, can contribute positively to classroom dynamics and broader community resilience (Chauke, 2021). Realising this potential requires a deliberate shift in how neurodiversity is perceived and supported at both systemic and community levels.

### ***2.1.1 Inclusive education in rural South Africa***

Inclusive education in South Africa is rooted in a broader historical imperative to dismantle the legacies of segregation and educational inequality. The 1997 White Paper 6 on Special Needs Education laid the groundwork for inclusive education policy, aiming to integrate learners with disabilities into mainstream schools and provide them with contextually relevant support (Department of Education [DoE], 1997). While this policy marked a significant step toward equity, its implementation – especially in rural settings – remains uneven and fraught with challenges.

In rural schools, the gap between the aspirations of inclusive policy and the realities of the classroom is particularly pronounced. Many institutions continue to struggle with under-resourced infrastructure, limited access to assistive technologies, and a lack of adequately trained teachers (Suhalka, 2024; Mncube, 2020). These constraints, combined with the socio-economic disparities between rural and urban communities, contribute to higher dropout rates and lower academic performance among neurodiverse learners in rural areas (Chauke, 2021).

Cultural perceptions further complicate the practice of inclusion. In many rural South African communities, neurodiversity is often misunderstood or associated with stigma, which can isolate families and deter them from seeking support for their children (Walton & Engelbrecht, 2022; Sibanda, 2020). Matjokana (2023) notes that these perceptions are shaped by historical, spiritual, and social beliefs that may conflict with formal understandings of inclusive education. Overcoming these barriers requires not only policy implementation but also culturally sensitive approaches that engage rural communities on their own terms (Kuyper & Pillay, 2021).

### ***2.1.2 Community and family engagement***

Community and family engagement are central to building inclusive early childhood education systems in rural areas. When families and communities are involved in shaping educational practices, they contribute essential knowledge and resources that formal education systems often overlook (Nel & Smit, 2021; Hadar-Frumer et al., 2023). In the context of neurodiversity, this engagement fosters continuity between home and school, ensures more personalised support, and strengthens cultural relevance in learning environments. In settings where state provision is limited, community-driven initiatives can play a pivotal role in facilitating inclusive education. These initiatives offer adaptive, locally relevant solutions that draw on the strengths and values of the community (Mncube, 2020). For example, community volunteers may assist in classrooms, local elders may contribute to awareness-raising, and families may co-design learning support strategies that reflect their lived realities.

Culturally responsive practices (CRP) are particularly valuable in this regard. CRP advocates for teaching approaches that affirm learners' cultural backgrounds, languages, and community identities (Abdalla & Moussa, 2024). In rural South African ECE settings, CRP may involve adapting curricula to include local languages, respecting indigenous knowledge systems, and valuing traditional caregiving practices. These approaches not only promote inclusion but also foster a deeper sense of belonging and validation among neurodiverse learners and their families (Tomlinson & Imbeau, 2023; Jojo, 2024). When education aligns with the cultural and socio-economic realities of rural communities, learners are more likely to feel supported and valued—leading to improved academic, social, and emotional outcomes (Barton & Armstrong, 2020). Building inclusive rural education systems, therefore, requires an integrated approach that combines policy, pedagogy, community engagement, and cultural awareness.

### **3. Research Methodology**

This section outlines the philosophical orientation, methodological approach, and research design that shaped this study. The study is underpinned by a transformative paradigm, uses a qualitative approach, and adopts Participatory Action Research (PAR) as its design.

#### **3.1 Research paradigm**

A research paradigm refers to a researcher's philosophical framework that encompasses their way of thinking, worldview, beliefs, and interpretations of reality (Khatri, 2020; Kivunja & Kuyini, 2017; Okesina, 2020). In the present study, the transformative paradigm was adopted, which is rooted in critical theory and seeks to promote social justice, equity, and inclusion (Omodan, 2022; Mertens, 2021). This paradigm was particularly appropriate for the investigation as it positions marginalised individuals not merely as subjects of research but as agents of transformation (Uthman, 2023).

Within this framework, Early Childhood Development (ECD) educators, parents of neurodiverse children, and community volunteers from rural contexts were not solely participants but collaborative agents in the co-construction of inclusive educational practices. The transformative paradigm enabled these stakeholders—whose voices are frequently silenced in mainstream discourse—to collectively reflect on their challenges and reimagine inclusive strategies grounded in their lived experiences.

#### **3.2 Research approach**

This study employed a qualitative research approach, which is suitable for exploring complex phenomena as they naturally occur within their context (Tikhonova & Raitskaya, 2024). Qualitative research is characterised by its focus on meaning-making, lived experience, and rich narrative data (Judge, 2024). Gallagher et al. (2024) argue that qualitative approaches are particularly effective in capturing in-depth, participant-centred insights, while Bednarek (2024) contends that such methods allow for an exploration of experiential dimensions that cannot be quantified or generalised statistically. In this study, qualitative methods facilitated a nuanced understanding of how families with neurodiverse children experience and shape inclusion in rural ECD settings. The approach enabled the collection of deep, contextually situated data through participatory story circles.

#### **3.3 Research design**

The design of this study is underpinned by Participatory Action Research (PAR), a democratic and iterative process rooted in the philosophy that those impacted by social issues should be actively engaged in the research pertaining to those issues (MacDonald, 2012). In this instance, the study involved a small group—an Action Learning Set (ALS)—comprising ECD educators, parents of neurodiverse children, and community members. It is crucial to clarify that the study did not directly involve any children; only their parents participated, thereby ensuring ethical compliance and relevance to the research focus.

PAR functions as both a research design and a cyclical process that encompasses planning, acting, observing, and reflecting (Vaughn & Jacquez, 2020). This process is repeated until participants achieve a collective consensus that their goals have been sufficiently addressed (Serrat, 2017). The iterative nature of PAR facilitates continuous learning, deep engagement, and the collaborative development of solutions to real-world challenges. Through this process, participants not only share their experiences but also interrogate their practices, learn from one another, and co-create actionable knowledge (Pedler, 2012; Wood, 2020).

This study was structured around two major PAR cycles. In the first cycle, participants conveyed their lived experiences through story circles, a method rooted in oral storytelling traditions that aligns with the ethos of PAR. The story circles functioned as dialogic spaces where participants narrated challenges, explored social and educational dynamics, and identified barriers to inclusion. This cycle addressed the first sub-question: What are the experiences, feelings, knowledge, and expectations of ECD educators, parents, and community volunteers regarding the inclusion of neurodiverse children?

The second cycle concentrated on collaboratively identifying actions to address the issues raised. Participants revisited and reaffirmed their shared vision and roles. They also collectively analysed the narratives generated in cycle one, strategised solutions, and considered implications for ECD practices in rural contexts. This cycle responded to the second sub-question: What actions can be taken to address the identified issues? The application of PAR represented a deliberate departure from traditional, top-down research models. Rather than imposing external interpretations, this study affirmed the expertise of ECD educators, parents, and community volunteers, recognising their insights as central to the transformation of inclusive practices. Their voices were not only acknowledged but systematically integrated into the research process.

### **3.4 Research setting and participants**

The study was conducted in Humansdorp, a rural town in South Africa's Eastern Cape province, across two institutions: an ECD centre and a primary school operating under a Memorandum of Understanding. Participants were selected through purposive sampling based on their direct involvement in early childhood development and support for neurodiverse learners. The Action Learning Set comprised two ECD practitioners, one Foundation Phase Departmental Head, three parents of neurodiverse children, and two community volunteers. While the sample size may appear limited, its composition reflects the principles of PAR, which emphasise depth of engagement, iterative collaboration, and transformative dialogue within small, manageable groups (Wood, 2020). Smaller ALS groups are often more effective in fostering trust, enabling inclusive participation, and achieving practical change.

### **3.4 Data collection and analysis**

Data were primarily collected through story circles, an oral narrative technique that aligns with local traditions and the participatory ethos of PAR. Story circle sessions were held in informal settings to reduce power imbalances and promote open dialogue. These sessions were audio-recorded with informed consent, transcribed verbatim, and supplemented with field notes capturing contextual and non-verbal cues. Data were analysed using Cultural-Historical Activity Theory (CHAT) as both a conceptual lens and analytical tool. CHAT enabled a systemic reading of how individuals (subjects), tools, community, rules, and divisions of labour interacted to shape inclusive practices in rural ECD settings. In line with PAR, CHAT helped uncover how cultural and institutional dynamics influenced everyday educational experiences (MacDonald, 2012; Wood, 2020).

The process began with immersion in story circle transcripts, reflective diaries, and field notes. Rather than identifying themes in isolation, data were interpreted in relation to CHAT's core components. For example, participants' use of folktales and songs was analysed as mediating tools that enabled

culturally responsive support for neurodiverse children. These artefacts served both pedagogical and social functions within the activity system.

Coding focused on identifying systemic tensions, which CHAT views as key to transformation (Engeström, 2001). A major contradiction emerged between formal institutional rules and the informal, culturally grounded caregiving practices used by families. Another involved gendered divisions of care, highlighting how community members—especially women—responded creatively to the lack of specialist support. Three overarching themes were identified: limited formal support for inclusion, strong community caregiving rooted in local knowledge, and the role of storytelling in learner inclusion. These themes were not merely descriptive but showed how inclusive practices emerged through historically and culturally situated activity systems.

### **3.5 Ethical considerations**

Ethical approval was granted by the Nelson Mandela University Research Ethics Committee (Ref: H22-EDU-PGE-020). Informed consent was obtained from all adult participants. The study did not involve children; it engaged only their parents, thereby avoiding direct ethical complications related to child participation. Confidentiality and anonymity were strictly maintained. The study also adhered to relational ethics by fostering mutual respect, shared decision-making, and critical reflection on the power dynamics between researchers and participants (Tracy, 2022).

## **4. Presentation of Findings**

The findings are organised around three key themes that emerged from the story circle discussions and CHAT-informed data analysis: (1) Community Involvement and Advocacy, (2) Cultural Beliefs and Practices, and (3) Stigma and Resilience. These themes illustrate how rural families and community members collectively navigate the challenges of raising neurodiverse children in under-resourced settings, while also mobilising cultural resources and relational practices to foster inclusion and support.

Each theme highlights how rural families navigate the complex and often contradictory terrain of raising neurodiverse children within under-resourced contexts. The Cultural-Historical Activity Theory (CHAT) lens enabled a deeper understanding of how cultural tools, social roles, and systemic contradictions interact within the ECD activity system to mediate inclusion or exclusion. In the discussion that follows, the findings are cross-examined with relevant literature to deepen the analysis.

### **4.1 Theme 1: Community involvement and advocacy**

Participants highlighted how limited access to formal services necessitated informal networks of care. Families relied on extended kin, churches, and traditional healers for support. This illustrates the relational dimension of rural care ecosystems—an ethic of ubuntu and solidarity embedded in caregiving practices.

Participant K VX shared:

*“My church members, especially the women’s group, are a constant source of support for me. It feels as if the world is forever throwing stones at me, but my sisters pick me up.”* (Participant, K VX)

This aligns with findings by Zahir et al. (2024), who emphasise that community support is essential in mediating neurodiversity education, especially in areas lacking systemic infrastructure. Through participatory approaches, community networks can foster neurodiversity acceptance and lessen isolation.

Traditional healers also featured prominently in families’ responses to developmental delays:



*"When my son was unable to speak at the age of five, we visited the local healer. He gave us herbs and said it was a spiritual matter."* (Participant NMY)

From a CHAT perspective, such cultural tools are both enabling and constraining—they provide meaning-making frameworks but may delay access to biomedical diagnoses. This echoes insights from Hersh et al. (2024), who found that community members' proximity to autistic individuals influences their acceptance of neurodiversity. In rural contexts, spiritual and traditional interpretations remain powerful mediators of understanding.

Teachers' lack of preparedness was a recurring concern:

*"This teacher told me she does not know how to handle my child's behaviour. Sometimes, they make him sit in the corner all day."* (Participant QST)

This reveals a contradiction in the ECD activity system—between policy tools that promote inclusion and the division of labour that leaves practitioners under-skilled. As Alcorn et al. (2024) note, without systematic neurodiversity training for educators, inclusive education remains aspirational rather than actualised.

## **4.2 Theme 2: Cultural beliefs and practices**

Participants described using traditional songs, dance, and rhythm to engage neurodiverse children. These cultural tools not only facilitated inclusion but also offered predictability and emotional regulation—critical needs for many neurodiverse learners.

An ECD teacher explained:

*"My autistic learner does not speak much, but when we sing familiar songs, he joins in. It's as if the music unlocks something in him."* (Participant NME)

This finding is supported by Moya-Pérez et al. (2024), whose systematic review found that music therapy can serve as both therapeutic and pedagogical support for neurodiverse learners, particularly in early childhood. Music functions as a mediational artefact, bridging communication gaps and creating emotional safety.

Teachers also used familiar songs to support transitions:

*"When a child gets upset, we sing a calming song they recognise from home. Sometimes, we use a slow clapping rhythm with it."* (Participant, VWX)

Here, the CHAT construct of tool mediation is evident: teachers creatively use cultural rhythms to scaffold inclusion. This aligns with LaGasse et al. (2024) (cited in Moya-Pérez et al., 2024), who highlight music's role in co-regulating emotional states and enhancing participation.

Dance rituals were also seen as deeply inclusive:

*"Dance is part of who we are. When we dance in a circle, it's about connecting. Even the shyest children want to join because it feels like belonging."* (Participant ZEE)

These findings suggest that cultural tools can serve as inclusive scaffolds—they are embedded, accessible, and emotionally resonant. However, their role is often overlooked in formal policy discourses.

## **4.3 Theme 3: Stigma and Resilience**

Stigmatisation emerged as a pervasive contradiction in the activity system. Participants described being judged or blamed for their children's neurodiversity:

*"People in the township say my child's behaviour is because of something I did wrong."* (Participant ZWY)

Such narratives reflect enduring moralistic and supernatural explanations of disability. Ndlovu (2023) and Yaacob et al. (2021) similarly found that traditional attributions can perpetuate stigma and hinder timely support. From a CHAT perspective, this represents a contradiction between community norms and the inclusive principles promoted in educational policy.

Another participant expressed the hurt of covert judgment:

*"Neighbours are always willing to give a helping hand, but the minute you turn your back, they say you are cursed – that only the anointed can be around your child."* (Participant QST)

This duality – supportive on the surface, yet judgmental behind the scenes – was emotionally draining. Hersh et al. (2024) argue that community acceptance of neurodiversity is uneven, shaped by social distance and familiarity. In rural contexts, these contradictions are intensified by spiritual interpretations of disability.

Parents also critiqued exclusionary practices in ECD settings:

*"The policy says all schools should accept all learners. But I see how my child is left to sit in a corner while the others play outside... Most of the time, I find him at home – brought back by another learner."* (Participant ZWY)

Here, the tools (inclusive education policies) are not fully integrated into practice due to gaps in the division of labour – i.e., teachers' capacity and institutional support. Sumbane et al. (2023) stress that without systemic implementation, inclusive policy frameworks remain symbolic.

However, amidst these contradictions, families displayed profound resilience and agency. Many drew on faith and community support:

*"As a Christian woman, I know I should not give up. I know my help comes from the Lord. But sometimes it is just too difficult."* (Participant, KVX)

And others found strength through sharing knowledge and supporting others:

*"I am free. I am free to breathe with my child. God is good."* (Participant, QST)

These acts of care, solidarity, and persistence reflect what CHAT would describe as transformative agency – where participants begin to question and reshape the structures that constrain them. This echoes the findings of Alcorn et al. (2024) and Zahir et al. (2024), who discovered that neurodiversity education is most impactful when it fosters collective advocacy and lived expertise.

In summary, the findings illustrate that neurodiversity in rural early childhood settings is navigated through contradictions, cultural mediation, and collective resilience. Families are not passive recipients of aid but active agents who mobilise cultural, spiritual, and relational resources to create more inclusive worlds for their children. A CHAT-informed lens reveals both the structural gaps and the rich local practices that mediate neurodiverse children's inclusion. These insights confirm and expand upon the findings of Moya-Pérez et al. (2024), Alcorn et al. (2024), Zahir et al. (2024), and Hersh et al. (2024), affirming the importance of localised, community-driven, and culturally sensitive approaches to inclusive education.

## **5. Discussion of Findings**

This study found that families of neurodiverse children in rural South Africa navigate a complex web of cultural, institutional, and communal forces that shape inclusive practices in early childhood development (ECD). Guided by Cultural-Historical Activity Theory (CHAT) and framed within a transformative paradigm, the findings reveal how systemic contradictions, local knowledge systems, and community-based strategies intersect to support or hinder inclusion. CHAT illuminates these dynamics by unpacking the relationships between subjects (families, educators), tools (stories, rituals, networks), rules (social norms, institutional policies), communities (kinship networks, local

organisations), and the division of labour (care roles), thereby providing a holistic lens through which inclusion is mediated, negotiated, and contested.

### **5.1 Community advocacy as mediating tool**

The study revealed that rural families rely on collective community-based resources—such as extended kinship networks, religious groups, and traditional healers—as essential mediating tools that enable them to manage the daily challenges of raising neurodiverse children. These actors often operate informally but provide key emotional, social, and informational support. Within the CHAT framework, these community actors serve dual roles as both tools and subjects in the ECD activity system, helping families to navigate care responsibilities in the absence of formal support.

This aligns with Zanjani et al. (2025), who emphasise the significance of cultural brokerage and community-led interventions in underserved areas. Similarly, Flores et al. (2025) demonstrate that participatory and culturally rooted e-learning models foster more sustainable, community-embedded outcomes. However, these communal strengths often clash with state-sponsored institutions that tend to adopt universalist, biomedical models of care, which often marginalise indigenous knowledge systems and non-professionalised forms of caregiving. CHAT helps to map these contradictions—what Engeström (2014) describes as tensions that can prompt expansive learning and change. This is evident in what Hersh et al. (2024) term the closeness gap, wherein interventions fail due to a lack of resonance with the local context. Hence, the findings support calls for dialogic partnerships that embed indigenous voices into ECD programme design.

### **5.2 Cultural practices as developmental assets**

The study also found that cultural practices such as storytelling, music, dance, and ritual ceremonies are not only central to rural identity but also serve significant pedagogical and therapeutic functions for neurodiverse children. Participants repeatedly cited these practices as effective for calming children, enhancing communication, and fostering social belonging. Viewed through the CHAT framework, these activities function as mediating tools that support development and inclusion, especially in contexts where professional services are lacking or inaccessible.

This corroborates Moya-Pérez et al. (2024), who, in their systematic review, demonstrate how culturally rooted music therapy improves sensory integration and emotional well-being among neurodiverse learners. Alcorn et al. (2024) further argue that culturally congruent learning approaches provide more relevant and effective education for diverse learners. Within CHAT, such tools gain significance not merely as supplements to formal education but as central to the activity system. These findings also align with Freirean pedagogy, which promotes the use of local knowledge as a springboard for transformative learning (Freire & Shor, 1987). By centring cultural resources, communities not only resist deficit discourses but also affirm the capacities and dignity of neurodiverse children.

### **5.3 Stigmatisation and collective resilience**

The study revealed a significant contradiction: while community support systems provide care and inclusion, they are also permeated by stigmatising beliefs rooted in supernatural interpretations of neurodiversity. Many families reported being blamed—particularly mothers—for their children's conditions, which were sometimes interpreted as ancestral punishment or witchcraft. However, these families simultaneously demonstrated resilience, turning to communal dialogue, prayer groups, and storytelling as means of coping and resistance.

CHAT helps to conceptualise resilience as relational and culturally mediated, rather than individualised. Prayer circles, family meetings, and oral storytelling serve as collective tools that reshape communal understandings and foster inclusion. These findings resonate with Zahir et al. (2024), who found that shared narratives and storytelling reduced stigma and built inclusive

community identities. Similarly, Hersh et al. (2024) argue that individuals with lived proximity to neurodiverse individuals often exhibit more empathetic and inclusive behaviours than formally trained professionals. In Freirean terms, this movement from shame and isolation towards agency and understanding can be interpreted as a process of *conscientização* – critical consciousness (Freire, 1970). This transformation underscores the potential of dialogic, community-embedded approaches in shifting norms and fostering solidarity in the face of marginalisation.

#### **5.4 Toward culturally responsive and inclusive rural practices**

The study affirms the need to reimagine inclusion not as a top-down policy implementation but as a co-constructed, contextually grounded process. It found that sustainable inclusion requires embedding culturally resonant tools and practices into the everyday activities of ECD settings. This includes not only valuing traditional practices but also fostering partnerships between families, educators, and community leaders to co-design meaningful interventions. Alcorn et al. (2024) argue that neurodiversity education must begin with cultural literacy – understanding the contexts in which children live. Flores et al. (2025) show that inclusion is most effective when stakeholders engage in participatory processes that build local capacity. CHAT reveals that when rules, tools, and roles within the ECD activity system are transformed through such dialogic engagements, possibilities for expansive learning and systemic change emerge.

Thus, culturally responsive pedagogy is not merely additive but transformational. As Freire (1970) and Freire & Horton (1990) assert, true education must begin with listening to and learning from those who have been historically silenced. In this context, cultural competence training for educators and inclusive professional development practices becomes imperative. They serve as mechanisms for bridging the epistemic divide between formal service provision and grassroots caregiving practices. The study advocates for an inclusive agenda that is both locally situated and structurally informed, driven by critical engagement and community ownership.

### **6. Conclusion**

This study aimed to explore how inclusive practices for neurodiverse learners in early childhood are shaped and co-constructed by families, educators, and communities within the rural context of the Sarah Baartman District. Grounded in a transformative paradigm and guided by Cultural-Historical Activity Theory (CHAT), the research sought to understand how social, cultural, and historical factors mediate family experiences and support mechanisms in early childhood development.

The findings revealed that families in rural areas navigate a complex interplay of cultural beliefs, communal support, and limited institutional resources. Community-based networks – such as churches, traditional healers, and extended family structures – emerged as key enablers of inclusion. These networks provided emotional, spiritual, and informal learning support, often compensating for the inadequacies of formal educational and health services. Cultural practices, including storytelling, music, and rituals, were found to play pedagogical roles in fostering a sense of belonging and participation for neurodiverse children. At the same time, the study highlighted systemic contradictions, including stigma, a lack of teacher preparedness, and gaps between policy and practice, which hinder inclusive efforts and frustrate caregivers.

The study shows that inclusive education in rural early childhood contexts cannot rely solely on imported models or universal approaches. Instead, it must be locally grounded, culturally responsive, and built through collective agency. Families are not passive recipients of services but active agents with valuable knowledge and experience to contribute. Their voices, often marginalised, are essential for reimagining inclusion in ways that honour children's dignity and potential.

However, the study is not without limitations. The small sample size, due to the focused case study and voluntary participation, limits the generalisability of the findings. Additionally, the study was

conducted in one rural district, and while rich in depth, it may not fully represent the diversity of rural experiences across South Africa. Further research across multiple contexts would enrich understandings of rural inclusion and offer comparative insights. Moreover, while the study centred on family and community voices, more sustained engagement with policy implementers and health professionals would provide a more integrated picture of the systemic dynamics at play.

The primary recommendations arising from this study underscore the necessity for comprehensive and context-sensitive strategies to enhance inclusive education for neurodiverse learners in rural early childhood settings. Firstly, teacher development should prioritise the integration of neurodiversity-informed and culturally responsive content into both pre-service and in-service training, with particular attention to the unique challenges faced by rural educators. Secondly, community-based support systems—including churches, traditional leaders, and informal caregivers—should be formally recognised and incorporated into inclusive education frameworks as essential partners. Thirdly, culturally embedded practices such as storytelling, music, and rituals should be validated and integrated into pedagogical approaches to enhance learner engagement and participation. Fourthly, sustained dialogue and collaboration between families, educators, and community members must be institutionalised through platforms such as learning circles or community forums that encourage collective problem-solving. Additionally, policy implementation requires stronger support structures, including effective monitoring, teacher mentoring, and adequate resource allocation for rural schools. Finally, participatory, community-led research should be promoted to ensure that the voices and knowledge of rural communities meaningfully shape inclusive education policies and practices.

## 7. Declarations

**Author Contributions:** Conceptualisation (D.G. & E.M.); Literature review (D.G. & E.M.); methodology (E.M.); software (N/A.); validation (D.G. & E.M.); formal analysis (D.G. & E.M.); investigation (D.G. & E.M.); data curation (D.G.); drafting and preparation (D.G. & E.M.); review and editing (D.G.); supervision (N/A); project administration (D.G. & E.M.); funding acquisition (N/A). All authors have read and approved the published version of the article.

**Funding:** This research did not receive any external funding. The Article Processing Charge (APC) was covered by Nelson Mandela University.

**Acknowledgements:** The Authors make no acknowledgements.

**Conflicts of Interest:** The authors declare no conflict of interest.

**Data Availability Statement:** The data are not publicly available due to confidentiality agreements with participants and ethical restrictions imposed by the Institutional Review Board. However, de-identified data can be made available from the corresponding author upon reasonable request, subject to approval by the ethics committee.

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