



Educators' Perspectives on Inclusive Education in Pre-Primary Education: An Ecological Analysis of Multi-Level Enablers and Barriers in Tanzania

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ABSTRACT

Disability-inclusive education is a global concern, but its implementation in pre-primary education remains inconsistent, especially in low- and middle-income countries, including Tanzania. Therefore, it became important to study factors that enable or disable disability practices in pre-primary education in Tanzania's context. The qualitative research approach and phenomenological design were used to explore factors for disability-inclusive education in pre-primary education. The study collected data using focus group discussions and interviews with 26 educators (participants). The study applied concepts of Bronfenbrenner's Ecological Systems Theory to analyse data using inductive and deductive approaches. The findings revealed that several factors at many levels influenced disability inclusion. The microsystem factors included physical environments, classroom practices, and immediate social interactions; the mesosystem factors included school-family-community partnerships; the exosystem factors included institutional frameworks, resource allocation, and social services; and the macrosystem factors included national policy frameworks and societal cultural norms. To achieve ideal inclusion at the pre-primary level, there is a need for more funding, community sensitisation, teacher professional support, accessible infrastructure, and enhanced data systems. Notably, disability-inclusive pre-primary education is a fundamental component of equitable development and a human right, necessitating a coordinated, multi-sectoral response. Therefore, to change the current state of disability-inclusive education, it is vital to address all debilitating factors.

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INTRODUCTION

From a long history of discriminatory practices against children with disabilities (CWDs), especially in early childhood settings, inclusive education has risen to offer sustainable and equitable education for all. Historically, pre-primary education systems around the world prioritised normal developmental pathways and marginalised children whose physical, sensory, intellectual, or psychosocial development deviated from dominant expectations (Black et al., 2017). Before the 20th century, CWDs were either completely excluded from formal education or received their education in segregated facilities, particularly in low- and middle-income nations. Rights-based movements and historic international frameworks like the Salamanca Statement (UNESCO, 1994) and the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) (United Nations [UN], 2006) upheld education as a fundamental right for CWDs. These frameworks served as catalysts for the global shift towards inclusion.

In the context of pre-primary education, disability inclusion is commonly acknowledged as fundamental. Early childhood is a vital period for social, emotional, and cognitive development (Rao et al., 2017; Black et al., 2017; UNESCO & UNICEF, 2024). Disability exclusion in pre-primary education can have long-term negative consequences. As a result, inclusive education has developed as an important component of global educational agendas. For example, Sustainable Development Goal 4 (SDG4) (UN, 2015) requires universal access to high-quality, inclusive education. However, implementation of these pledges remains uneven, particularly in resource-constrained environments (World Health Organization [WHO] & World Bank, 2011; Global Education Monitoring Report Team [GEMR], 2020; Cosmas, 2021; Basil, 2023; Inclusive Futures, 2024; UNESCO & UNICEF, 2024). Disability exclusion from pre-primary education might have long-term detrimental implications. As a result, inclusive education has become a key component of global educational objectives. For example, Sustainable Development Goal 4 (SDG4) (UN, 2015) calls for universal access to high-quality, inclusive education. However, implementation of these pledges is inconsistent, especially in resource-constrained situations where systemic, infrastructural, cultural, and human resource difficulties persist (World Health Organization [WHO] and World Bank, 2011; Global Education Monitoring Report Team [GEMR], 2020; UNESCO & UNICEF, 2024).

Educators play an important role in creating inclusive environments for CWDs. Pre-primary educators serve as gatekeepers to participation through their pedagogical decisions, classroom layout, and attitudes toward disability (Kwon et al., 2017). At the same time, parents play an important role in early detection, advocacy, and continuity at home and at school. Research from Sub-Saharan Africa shows that limited collaboration between educators and parents often jeopardises inclusive aims, resulting in fragmented support networks for CWDs (Basil, 2023). Successful disability inclusion in pre-primary education requires strategies that include families and recognise their experiential knowledge as a valuable asset inside disability-inclusive institutions.

Inclusive education is a paradigm shift based on social and human rights concepts of disability, which see disability as a product of environmental, attitudinal, and institutional barriers rather than individual impairment (Committee on the Rights of Persons with Disabilities [CRPD], 2016; Lawson and Beckett, 2020). High-quality inclusive education is distinguished by learning settings that actively respond to learner variety while assuring equal participation and positive outcomes for all students. A rights-based perspective sees inclusion as a legal and moral imperative that is supported by enabling legislation, proper funding, and good governance (UNESCO, 2009; CRPD, 2016). At the school level, the features of quality inclusive education are flexible curricula, learner-based pedagogy, and universal design (Cologon, 2019; Hunt, 2020). Competent pre-primary educators are essential but need ongoing pre-service and in-service training to develop good attitudes, collaborative abilities, and the ability to collaborate with families and specialists (Burchinal, 2018; Adewumi & Mosito, 2019). Accessible infrastructure, assistive resources, and secure learning environments reduce physical and social barriers, while active parental and community participation enhances the sustainability and accountability of inclusive practices (Barrett et al., 2019; UNESCO, 2018; UNICEF, 2023a).

Human rights, social fairness, and proof of successful learning are all driving forces for disability inclusion in education. International frameworks such as the Salamanca Statement and the UNCRPD (UNESCO, 1994; CRPD,

2016) consider disability-inclusive education as a fundamental right for CWDs. These frameworks mandate that schools address structural, attitudinal, and pedagogical barriers that exclude CWDs. Disability inclusion in education is justified not only on moral and legal grounds but also on developmental and educational effectiveness, as early inclusive environments promote cognitive, social, and emotional development in all children (Black et al., 2017; Hunt, 2020). CWDs benefit from inclusive education, as do their peers, instructors, families, and communities, since it promotes empathy, social cohesiveness, and good attitudes toward diversity (Slee, 2019; Cologon, 2019). This indicates that disability-inclusive education benefits both CWDs and non-disabled children by improving social skills, peer connections, and learning results. Evidence from low- and middle-income settings also shows that disability-inclusive approaches are more cost-effective and long-lasting than parallel special systems, particularly when integrated into existing community and early childhood institutions (Wodon et al., 2018; Mont, 2021; UNICEF, 2023a). As a result, in the long run, disability inclusion in education promotes fair human capital development, reduces social exclusion, and achieves "education for all" throughout life.

Theoretical Framework

This study used Bronfenbrenner's Ecological Systems Theory (1979) to explore disability-inclusive pre-primary education from multiple perspectives, including systemic, infrastructural, cultural, and resource-based challenges. The theory explains how child development and learning are influenced by interconnected environmental contexts, such as the microsystem (e.g., classroom and teacher), mesosystem (e.g., school and family interaction), exosystem (e.g., local government and community structures), and macrosystem (e.g., policies and cultural beliefs) (Chong et al., 2023; Panopoulos & Drossinou-Korea, 2020). In pre-primary settings, these interconnected systems influence teacher preparedness, parental participation, resource allocation, and cultural perceptions about disability, making disability inclusion a multifaceted process rather than a classroom-level intervention. Therefore, for this study:

- At the micro-system level, family conditions, teacher preparedness, peer interactions, and school infrastructure may all have a direct impact on disability inclusion, whereas parental views, socioeconomic position, and disability-related issues may influence enrolment and support.
- The meso-system incorporates interactions between different settings, particularly parent-teacher and home-school partnerships, which are critical for inclusive practices and excellent learning outcomes.
- The exo-system comprises external issues such as parents' employment, disability-related laws, and legislation, all of which have an indirect impact on access to inclusive pre-primary education.
- At the macro-system level, policies, cultural beliefs, social norms, and societal attitudes toward disability may have a significant impact on disability inclusion and fairness in pre-primary education provision.

Therefore, Bronfenbrenner's ecological systems theory was important for this study to explore disability-inclusive education in pre-primary education from a multidimensional perspective, including systemic, infrastructural, cultural, and resource-based difficulties.

Disability-Inclusive Education in Tanzania

Disability inclusion in Tanzania's pre-primary education context has progressed through several historical stages influenced by socio-cultural attitudes, colonial legacies, and post-independence legislative changes. Before colonialism, childhood education was generally informal and community-based, with roots in family and clan institutions. Children, especially those with disabilities, learnt by participating in daily social, cultural, and economic activities, where care and responsibility were shared collaboratively. While such institutions allowed for social inclusion, disability was frequently viewed through cultural or spiritual lenses, which might result in protection or exclusion depending on prevailing beliefs (Rohwerder, 2015). During the colonial period and up to independence, formal education systems established by colonial administrations stressed elite and utilitarian goals, marginalising pre-primary education and largely ignoring CWDs. Special education, where it existed, was charity-driven and segregated, frequently delivered by missionaries and faith-based organisations, promoting deficit-based and medical perspectives on disability rather than inclusive pedagogies (Possi & Milinga, 2017).

After independence, Tanzania's commitments to social justice and human rights developed a framework for more inclusive educational practices. However, disability was mostly handled in special schools and units (Possi & Milinga, 2017). Global frameworks such as the Salamanca Statement and the UNCRPD (UNESCO, 1994; UN, 2006; CRPD, 2016) stimulated national reforms in the 1990s to promote disability inclusion as a rights-based demand. Recent legislative measures, such as the Persons with Disabilities Act of 2010 and the National Strategies for Inclusive Education, explicitly recognise pre-primary education as the foundation for early detection, involvement, and disability inclusion. Similarly, the Education and Training Policy 2014, Edition 2023 (URT, 2023) establishes a policy framework for CWDs to access inclusive education at all levels.

Despite Tanzania's commitments to disability-inclusive education, research evidence shows that pre-primary education for CWDs remains underprioritised (Mapunda et al., 2017; Cosmas, 2021; Basil, 2023; Inclusive Futures, 2024). The gap between policy commitments and actual classroom practices raises urgent questions about how Tanzania can realise its vision of inclusive education at all levels. As a result, this study was conducted to examine how factors functioning across several ecological systems facilitated or limited CWDs' access to equitable and inclusive pre-primary education.

OBJECTIVES OF THE STUDY

Based on Bronfenbrenner's Ecological Systems Theory, the study explored how systemic and policy conditions and cultural norms (macrosystem), institutional structures and resources (exosystem), school-family-community relationships (mesosystem), and classroom and immediate learning environments (microsystem) influence the implementation of disability-inclusive practices in pre-primary education. To achieve this goal, the study was guided by the following research questions matched with ecological levels.

1. What microsystem elements influence the participation of CWDs in pre-primary education?
2. What mesosystem elements influence the implementation of disability-inclusive practices in pre-primary education?
3. What exosystem factors influence the delivery of disability-inclusive pre-primary education?
4. What macrosystem elements affect the implementation of disability-inclusive education in pre-primary schools?

METHODS

Research Design

This study used a qualitative, phenomenological design to explore factors influencing disability-inclusive education in pre-primary schools. A qualitative approach was appropriate because it allowed an in-depth exploration of participants' lived experiences, perceptions, and contextual realities related to inclusion at ecological levels. The approach was informed by an interpretivist paradigm, which recognises that knowledge about educational practices is socially constructed through participants' lived experiences and interactions (Creswell & Poth, 2018). The study also employed a phenomenological research design. The design focuses on how people make sense of events in their daily lives (Creswell & Poth, 2018). The design is also important in recording participants' subjective interpretations, shared understandings, and assumptions (van Manen, 2016).

Participants

This study was carried out in selected primary schools in Tanzania, mostly in Biharamulo District in Kagera Region and Kibondo District in Kigoma Region. The target population consisted of pre-primary education educators. Pre-primary education was chosen for its important role in early learning, assessment, and the identification of CWDs. The study comprised 26 participants drawn from four primary schools. These included 16 pre-primary teachers (named Teacher 1-16), four head teachers for all four schools (named Head Teacher 1-4), and three ward education officers (WEOs) (named WEO 1-3). These participants were involved because they were direct curriculum

implementers, instructional supervisors, education administrators, and education leaders in the education system. They were sampled using a purposive sampling strategy. The thematic saturation strategy determined a sample size of 16 teachers. Thematic saturation was reached when there were no further themes emerging from subsequent interviews or FGDs (Guest et al., 2006). The study included four head teachers and three WEOs because of their positions as education administrators and leaders.

Data Collection

The researcher held interviews with 26 educators. The semi-structured interviews were used to ensure that important information was covered while allowing probing. The semi-structured interviews also offered participants the flexibility to share their experiences. The interview guide focused on ecological system factors for disability-inclusive education in pre-primary education. Each interview took place between 30 and 40 minutes. Interview sessions were audiotaped after obtaining informed consent from participants and complemented by brief field notes. Four focus group discussions (FGDs) were held with pre-primary educators from Schools A, B, C, and D to explore their perspectives on ecological system elements influencing disability-inclusive teaching in pre-primary education. FGDs were held at School A with five (5) participants, School B with four (4), School C with five, and School D with four (4). A semi-structured discussion guide was utilised to guide FGDs on ecological system elements affecting disability-inclusive education in pre-primary schooling. The focus group discussions at School A lasted about 30-40 minutes, whereas those at Schools B and C lasted about 25-30 and 30-50 minutes, respectively. With the participants' permission, discussions were audio-recorded and supplemented by field notes that documented group points of agreement or disagreement. Group consensus data were taken.

Data Analysis

The study used thematic analysis to code data, develop themes, and interpret findings in an inductive and deductive manner (Guest et al., 2006), guided by Bronfenbrenner's Ecological Systems Theory. Interview and focus group discussion transcripts were read several times to identify important data points on educators' perspectives on an ecological analysis of multi-level enablers and obstacles to disability-inclusive education in pre-primary school. Inductive coding was originally used on participant accounts to allow themes to develop spontaneously from the data, whereas deductive coding was guided by the study's research questions and ecological system levels (microsystem to macrosystem). Codes were progressively improved and aggregated into bigger themes by comparing them across interviews and focus group discussions, allowing for the assessment of thematic repetition and data saturation.

Trustworthiness of the Study

The trustworthiness of the study is usually determined by the principles of credibility, dependability, confirmability, and transferability (Lincoln & Guba, 1985). Credibility of the study was attained through triangulating data sources. This means study used multiple methods of data collection methods such as interviews, focus groups, and document analysis. Strategies for dependability included a rigorous and transparent analytical method, complete with a clear audit trail recording data collection procedures. Confirmability was attained by ensuring interpretations of participants' verbatim accounts and policy texts, which reduced researcher bias. Transferability was supported by a detailed description of the study context and participants, which allowed readers to judge whether to transfer the findings to educational contexts with similar characteristics.

Ethical Consideration

All participants were asked to give informed consent to participate in the study. The researcher provided detailed information about the objectives and procedures of the study, and the opportunity to withdraw without penalty. Confidentiality and anonymity of the participants were maintained by removing any identifiable information from transcriptions and reports. Participants in interviews and FGDs were fully respected and not coerced to participate. Audio recordings during interviews and FGD sessions were made with participants' consent.

FINDINGS

This part consists of findings on disability-inclusive education in pre-primary education, arranged specifically using Bronfenbrenner's Ecological Systems Theory. The findings show how influences at the micro, meso, exo, and macrosystem levels influence inclusion. In accordance with Tanzania's Education and Training Policy (ETP), the National Strategy for Inclusive Education (NSIE), and the Persons with Disabilities Act, participants' experiences demonstrated both alignment with national policy aims and continuing gaps in implementation across ecological levels.

Microsystem factors

At the microsystem level, findings revealed that children's daily participation in pre-primary education was strongly shaped by physical environments, classroom practices, and immediate social interactions. Table 1 summarises microsystem aspects that enable or disable disability inclusion in pre-primary education.

Table 1: Summary of microsystem factors influencing disability inclusion

Exo-system factors	Enablers	Barriers	Some supporting quotations
Classroom setting	Teachers' efforts to adjust lesson delivery and support within the classroom.	Overcrowded classrooms, insufficient moving space, and a lack of appropriate seating all limited CWDs' ability to learn.	<i>"In many schools, the classrooms are small to allow movement of children with disabilities, especially those with physical disabilities with wheelchairs..."</i> (WEO 1). <i>"When the class is crowded, it is difficult to pay attention to students with disabilities..."</i> (Teacher 10). <i>"At our school, sometimes children sit on the floor because there are no seats available..."</i> (Head Teacher 2). <i>"Children with disabilities are more willing to participate when their teachers encourage them..."</i> (WEO 2). <i>"Some peers assist friends with disabilities during activities and playtime... Positive attitudes from teachers encourage children to embrace their friends more easily..."</i> (Head Teacher 4).
Whole school environment	Recognition of the importance of safe and supportive school surroundings.	Inaccessible toilets; unsafe playgrounds; limited independence in daily routines.	<i>"Our toilets are not friendly to children with disabilities."</i> (Teacher) <i>"The playground is rough, so these children cannot play safely."</i> (Parent) <i>"Children with disabilities avoid some areas of the school."</i> (Head Teacher)
Teacher attitudes and peer interactions	Supportive teacher attitudes and positive peer relationships.	Peer teasing; limited understanding of disability among children.	<i>"Children with disabilities are more willing to participate when their teachers encourage them..."</i> (WEO 2). <i>"Some peers assist friends with disabilities during activities and playtime... Positive attitudes from teachers encourage children to</i>

embrace their friends more easily...”
 (Head Teacher 4). *“Some children
 laugh at others who are different.”*
 (Teacher 10).

It was found that classroom settings significantly affected the participation of CWDs in pre-primary education. Participants reported that overcrowded classrooms, insufficient space to move, and inadequate seating all limited CWDs' ability to learn. Participants reported that, in many schools, the classrooms were too small to allow movement of CWDs; it was difficult to pay attention to students with disabilities, and sometimes children sat on the floor because there were no seats available. Participants expressed difficulty in providing personalised support in these situations. All these were microsystem-level barriers that directly affect inclusive classroom practice in pre-primary education. They demonstrate how physical learning environments and resource shortages interact to limit meaningful participation for CWDs.

It was also found that teachers made efforts to adjust lesson delivery and support within the classroom. To support CWDs, participants noted that teachers adjusted their teaching to allow learners with disabilities to participate alongside their peers. For example, teachers provided extra support and motivation to engage CWDs in learning. To ensure no child was left behind, they provided adaptable teaching. All these demonstrated that teacher-led adjustments served as an important microsystem enabler, directly altering children's daily learning experiences and engagement. Teachers reduced environmental obstacles and increased proximal interactions that encourage inclusion. They provided responsive support in the classroom, even when larger system supports were lacking.

It appeared that participants were aware of the value of safe and supportive school environments, which emerged as a key enabler of disability inclusion in pre-primary education. Participants expressed that accessible washrooms, safe passageways, and child-friendly play areas were important to CWDs' safety, independence, and participation in regular school activities. It was evident that with a comfortable learning environment, CWDs felt free to move around and learn. Parents were more likely to send their children to school when they felt safe there. Participants underlined the importance of secure and supportive school environments in shaping children's daily experiences and reinforcing inclusion by encouraging safety, independence, and belonging. Participants commented on the need for creating environments that respect CWDs' dignity and confidence.

The entire school environment, including sanitation and playgrounds, influenced children's safety and sense of belonging. Participants stated that many schools lacked accessible restrooms and safe places to play. As a result, CWDs could not engage in daily routines and play-based learning independently. Despite Tanzania's Persons with Disabilities Act's need for accessible public facilities, sanitation and play facilities still limit the participation of CWDs. These infrastructural constraints affect children's dignity, safety, and engagement in play-based learning. These conditions also affect the children's confidence and regular attendance. As indicated in Table 1, supportive teacher attitudes and peer interactions played a key role in enhancing disability inclusion in the classroom and school activities. Participants expressed that when teachers demonstrated patience, support, and acceptance, CWDs felt more comfortable. They fully participated in academic and social activities. Participants emphasised that positive peer relationships, such as helping each other, playing together, and demonstrating empathy, increased children's sense of belonging. Notably, in pre-primary classes, supportive teacher attitudes and positive peer relationships play an important role in the promotion of inclusion, engagement, and social belonging among CWDs.

However, peer taunting and children's lack of knowledge of disability appeared as major challenges to disability inclusion in pre-primary schools. Participants stated that negative peer practices disturbed CWDs during play and undermined children's confidence and willingness to participate in learning activities. These acts were associated with children's inadequate knowledge and understanding of disability. Participants also identified peer teasing and a lack of disability awareness as microsystem-level barriers that disrupt immediate social interactions and

undermine children's sense of belonging. Participants recommended the need for early disability awareness and inclusive socialisation in pre-primary education.

Mesosystem factors

The mesosystem findings revealed the pivotal role of school–family–community partnerships in enabling or constraining disability inclusion in pre-primary education. Table 2 summarises mesosystem aspects that influence disability inclusion.

Table 2: Summary of mesosystem factors influencing disability inclusion

Exo-system's factors	Enablers	Barriers	Example of quotes
Classroom setting	Active teacher–parent communication; engagement of community leaders; sensitisation meetings that encourage enrolment and shared responsibility	Weak collaboration between schools and families; limited parental involvement; persistent community stigma discouraging enrolment and attendance.	<i>“Parents opt to bring their children to school after teachers encourage them to do so”. (Head Teacher 1). “When we involve parents, they become more confident in supporting their children.” (Head Teacher 1). “Some parents continue to keep their children at home due to concerns about community reactions. (WEO 1).</i>

Where communication and collaboration were strong, participants reported that there was “perfect communication and partnership between teachers and shared responsibility”. As indicated in Table 2, participants emphasised that active communication and partnership between teachers and parents increased confidence to enrol and support CWDs. Parents opted to enrol their children in school after teachers’ encouragement to do so. However, weak partnerships and persistent community stigma disrupted continuity between home and school. It was evident that some parents continued to keep their children at home due to concerns about community reactions. These patterns indicated that inclusive practices depend not only on classroom efforts but also on the quality of interactions.

Exo-system factors

The findings at the exo-system level revealed that institutional frameworks, resource allocation, and social services had an indirect but significant positive or negative influence on inclusion in pre-primary education. Table 3 summarises the exo-system findings.

Table 3: Summary of exo-system factors influencing disability-inclusion

Exo-system's factors	Enablers	Barriers	Example of quotes
Institutional professional support	Existence of professional support structures and personnel, and institutional recognition of	Inclusive education in pre-primary education was rarely a top priority, and teachers did not receive sufficient school support to promote	<i>“During school visits of quality assurance education officers, pre-primary teachers rarely receive guidance on inclusive education ... (Teacher 2). “Our Head Teacher does not prioritise inclusive education in pre-primary education... (Teacher 9).”</i>

	disability-inclusion.	disability-inclusive education.	<i>“... There is limited follow-up support by personnel who are responsible for disability-inclusion practice and professional support... (Teacher 14).”</i>
Resource factor	Commitment of teachers to improvise locally available materials, and Government financing for inclusive education.	A shortage of competent personnel, instructional materials, assistive technologies, and inadequate budgets.	<i>“There are no specialised materials to help children with disabilities... (Head Teacher for School B).” “We were not trained to handle all forms of disability... (Teacher 1).” “We use local resources as there are none available... (Teacher 8).” “We were not educated to teach children with impairments in pre-primary classes... (Teacher 14).”</i>
Access to social Services	Legislative recognition of the health, rehabilitation, and social welfare services.	Restricted access to health, rehabilitation, and social welfare services, as well as delayed identification, assessment, and intervention.	<i>“When we identify a child with special needs, we are unsure where to refer them... (WEO 1).” “Even though Health and education sectors work separately, children with disabilities require both health and education to thrive... (Head Teacher for School B).” “There are no therapists or professionals in pre-primary schools (Teacher 3).”</i>

Participants, especially teachers, elaborated that there were education quality assurance officers (EQOs), ward education officers (WEOs), and the head teachers who were responsible for “professional support”. However, it appeared that professional support structures offered inadequate direction for implementing disability inclusion in pre-primary education. Participants reported that, although there were EQAOs and WEOs who were in charge of professional support, inclusive education in pre-primary education was rarely a top priority during follow-up visits or discussions. For example, Teacher 2 said, “During school visits, the school quality assurance education officers rarely give guidance on inclusive education to pre-primary teachers. The school quality assurance officers' support prioritises reports above classroom inclusion.” Participants also expressed that, although the head teachers were doing well in supporting inclusive education, they drew little attention to disability inclusion in pre-primary education. Teacher 9 had the following to say: “Our head teacher does not prioritise inclusive education for pupils with disabilities in pre-primary education. Head Teacher’s Office support prioritises inclusion in primary education with fewer responses to inclusion challenges in pre-primary education.” As a result, teachers did not receive sufficient school support to promote disability-inclusive education in pre-primary education.

It was found that, as indicated in Table 2, “resources”, such as trained personnel, instructional materials, and assistive technologies, indirectly enabled or disabled disability inclusion in education. On the exo-system's resource-related aspects, participants reported a shortage of competent personnel to support pupils with disabilities in pre-primary education. Participants also mentioned the shortage of instructional materials and assistive technologies required for inclusive pre-primary education. All of these limited the effective participation of CWDs. It was emphasised by participants that, despite governmental emphasis on financing inclusion, schools operated on limited budgets and relied on improvisation of local materials. All these reduced the transformative practice of disability inclusion in pre-primary education.

Participants elaborated that the NSIE and ETP call for adequate access to health, rehabilitation, and social welfare services. However, “access to support services” for CWDs was limited. Schools have restricted access to health, rehabilitation, and social welfare services. For example, WEO 2: “When we identify a child with special

needs, we are unsure where to refer them...” The head teacher for School B elaborated that “Even if health and education sectors work separately, CWDs require both health and education to thrive...” In the same vein, Teacher 3 emphasised that “there are no therapists or professionals in pre-primary schools.” This meant delays in identification, assessment, and intervention for CWDs in pre-primary education. Therefore, they limited early detection and continued assistance for CWDs.

Macrosystem factors

Macrosystem findings are clearly divided into national policy frameworks and societal cultural norms. Table 4 summarises macrosystem aspects that influence disability inclusion.

Table 4.4: Summary of macrosystem factors influencing disability inclusion

Macrosystem factors	Enablers	Barriers	Example of quotes
National policy frameworks	National policy frameworks formally recognise the right of CWDs to access pre-primary education, legitimised within education discourse.	Policies are perceived as broad, with limited operational guidance specific to pre-primary contexts.	“There are policies which state that children with disabilities should not be excluded from school...” (Head Teacher 11). “Government documents now explicitly declare inclusive education practices...” (WEO 3). “The government now promotes inclusive education at all levels of education...” (Head Teacher 4). “The policies provide us confidence in admitting children with impairments because it demonstrates that the government supports inclusion...” (Teacher 5). “Because the policies are clear, we cannot refuse a child with a disability; they have the same right to begin school as others...” (Head Teacher 2). “While the policy mentions inclusive education, it lacks specific guidance for pre-primary classrooms...” (Teacher 12). “While policies exist, they lack practical guidance on how to incorporate young children with various disabilities. Pre-primary teachers face challenges in implementing inclusive education due to a lack of clear norms and resources. (WEO 1).

Societal cultural Norms	Shifts toward acceptance were reported where community sensitisation had occurred.	Persistent stigma, shame, and beliefs linking disability to misfortune discourage enrolment and participation.	<i>“When norms evolve toward acceptance of children with disabilities, inclusion is enabled; when stigma continues, exclusion is reinforced.” (Head Teacher). “Persistent stigma and attitudes that associate disability with shame, misfortune, or retribution have discouraged enrolment and limited community acceptance of children with disabilities.” (Head Teacher 3). “Awareness meetings have helped individuals understand that disability is not a curse.” (Teacher 7). “The community’s increased acceptance has made some parents feel more comfortable bringing their children to school.” (WEO 3).</i>
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It was found that there were “national policy frameworks” that guided and enabled the provision of inclusive education at all levels. Participants elaborated that the national policy frameworks, such as the Education and Training Policy, the National Strategy for Inclusive Education, and the Persons with Disabilities Act, formally enabled disability-inclusive education in pre-primary education. Participants elaborated on these policies as legitimising and enabling the enrolment of CWDs. It demonstrated the government's commitment to inclusivity. The national policy frameworks were regarded as authoritative signals of the government's commitment to inclusion, legitimising the enrolment of CWDs in pre-primary education. Participants saw these frameworks as enabling inclusion to move from a discretionary practice to a legislated one, empowering schools and educators to admit and maintain CWDs in pre-primary settings. However, participants viewed the national policy frameworks as broad and insufficient for pre-primary contexts, limiting their impact on daily practice. Participants pointed out the lack of clear, age-appropriate guidance, resources, and procedures to assist their implementation with young CWDs. It meant that national policy frameworks were also barriers to disability inclusion in pre-primary education.

Table 4 also summarises societal cultural norms, which influenced disability inclusion in pre-primary education. Societal cultural norms served as both enablers and barriers to participation. For example, Head Teacher 2 said, “When norms evolve toward acceptance of CWDs, inclusion is enabled; when stigma continues, exclusion is reinforced.” The findings revealed that stigma, shame, and beliefs associating disability with misfortune or punishment remained prevalent in some communities, inhibiting early CWDs' enrolment. Head Teacher 3 emphasised that “persistent stigmas and attitudes that associate disability with shame, misfortune, or retribution have discouraged enrolment and limited community acceptance of children with disabilities.”

The findings also found that, in certain areas, promoting awareness and sensitisation efforts produced more positive attitudes toward disability, encouraged parents to enrol CWDs, and encouraged their participation in school activities. For example, Head Teacher 1 pointed out that “after awareness meetings, attitudes are gradually changing.” In the same vein, Teacher 7 explained that “awareness meetings have helped individuals understand that disability is not a curse.” WEO 3 concluded that “the community's increased acceptance has made some parents feel more comfortable bringing their children to school.” These competing standards influenced parental decision-making and shaped the larger social milieu in which schools functioned.

DISCUSSION

This part discusses the findings in line with Bronfenbrenner's Ecological Systems Theory. The findings revealed that successful disability inclusion emanates from interacting factors throughout the microsystem, mesosystem, exosystem, and macrosystem. In line with the social and rights-based models of disability, the identified challenges are mostly institutional, environmental, and attitudinal, beyond child-driven factors (Lawson & Beckett, 2020; CRPD, 2016). At the microsystem level, inaccessible classrooms, washrooms, and play areas disadvantaged CWDs' participation in normal learning activities. These findings are consistent with other research indicating that physical surroundings significantly influence early children's engagement and learning outcomes (Barrett et al., 2019; Hunt, 2020). Cultural beliefs at the microsystem level also influenced disability inclusion. Participants expressed concerns about stigma and peer bullying, which disadvantaged enrolment and attendance. These findings are congruent with research from Sub-Saharan Africa, where stigma and low expectations limit early engagement despite policy commitments (Hirpa, 2021). These findings concur with Bronfenbrenner's emphasis on proximal processes, which states the significance of daily interactions between children and their surroundings in inclusive early development (Black et al., 2017).

The mesosystem findings demonstrated that interactions among schools, families, and communities were important yet uneven. When teachers engaged parents and community members, they increased CWDs' enrolment and involvement. These findings were consistent with Sheridan's (2018) and Cologon's (2019) findings in developed countries, which found strong parent-teacher relationships in inclusive early learning. However, ineffective coordination and pervasive stigma divided support in the home and school settings, reducing continuity of care and early intervention. The findings were consistent with UNICEF's (2023b) finding that insufficient community engagement disadvantages inclusive education efforts in Eastern and Southern Africa. Strengthening mesosystem links appears to be an essential condition for long-term disability inclusion in pre-primary education. At the exosystem level, a limited number of skilled teachers, assistive materials, supportive services, and sustainable funding affected inclusive practice. Although Tanzania's National Strategy for Inclusive Education (NSIE) prioritised teacher preparation and resource allocation, participants reported limited access to training in inclusive pedagogy and professional development. Similar challenges have been found in Sub-Saharan Africa, where under-resourced institutional systems contribute to compounded exclusion in early childhood education (Wodon et al., 2018; Adewumi & Mosito, 2019).

Tanzania's legislative, strategic, and legal frameworks provide a strong foundation for disability-inclusive education. Participants stated that the frameworks enabled CWD enrolment in pre-primary education. This finding was compatible with global commitments outlined in the Salamanca Statement and the UNCRPD (UNESCO, 1994; UN, 2006; CRPD, 2016). However, the policy-practice gap suggested that macro-level commitments were not properly translated into practice, monitoring, and accountability at the lower system levels. Cultural traditions continued to portray disability as a curse or tragedy. This confirms Rohwerder's (2015) notion that social exclusion is deeply embedded in communal belief systems unless aggressively challenged.

In summary, the findings showed that disability inclusion in pre-primary education in Tanzania was within ecological and structural contexts. Ecological systems theory is integrated with disability models and policies. Reflecting on the social model of disability, exclusion of CWDs emanates from inaccessible environments, insufficient resources, improper coordination, and negative attitudes (Lawson & Beckett, 2020). Bronfenbrenner's theory posits how restrictions at the macrosystem (policy support and cultural norms), exosystem (institutional support and resources), and mesosystem (interactions among schools, families, and communities) cascade downward to create microsystem experiences in schools and households. Although Tanzania's ETP, NSIE, and Persons with Disabilities Act are consistent with international frameworks, the findings indicated that targeted resourcing of pre-primary education and ongoing community sensitisation were required to achieve inclusive education in practice.

IMPLICATIONS

This study explored factors for disability-inclusive education in pre-primary education from an ecological perspective. It demonstrated how various factors interact to influence disability inclusion at different levels of ecological systems. Despite Tanzania's strong policy, strategic, and legal frameworks, the findings showed persistent gaps between policy objectives and practice at the school and classroom levels. Inadequate infrastructure, insufficient school support and resources, weak school-family-community partnerships, and cultural stigma continued to reduce meaningful disability inclusion in pre-primary education. Positive peer and teacher attitudes, adaptable classroom methods, and building community awareness were important steps for increasing inclusion. In summary, disability inclusion in pre-primary education requires a combined effort that brings together policy actions, school resources, community involvement, and everyday teaching practices to provide equitable learning experiences for every child.

In the absence of well-defined funding structures and accountability systems, inclusive education was merely theoretical. It is recommended that schools, through Local Government Authorities (LGAs) and the Ministry of Education, Science, and Technology (MoEST), ensure the funding structures and accountability systems for pre-primary education. Schools and other education stakeholders should create community awareness to dismantle stigma and misconceptions about disabilities. Further, schools should seek assistance from Local Government Authorities and other education stakeholders to ensure the availability of child-friendly learning environments, adequate assistive materials, accessible classrooms, accessible washrooms, and ramps.

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