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The Barriers to Inclusive Education for Children with Disabilities in the Kambia District of Sierra Leone

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Abstract

This study looks at barriers to inclusive education for children with disabilities in Kambia District, Sierra Leone. Inclusive education means all students learn together in same schools. But many disabled children in sub-Saharan Africa still not getting education. The study used mixed methods. Data came from 250 participants including impaired children, teachers, parents and school heads. We used interviews and questionnaires. Data was analyzed with thematic analysis and logistic regression. Results show negative societal attitudes was strongest predictor of disabled children being out of school (OR = 5.19, $p < .001$). Physical barriers in schools come second (OR = 4.15, $p < .001$). Lack of transportation was third (OR = 3.31, $p < .001$) and lack of special learning materials was fourth (OR = 2.87, $p < .001$). Pregnant students and poor students also face big exclusion. The study conclude that awareness of inclusive education has grown but implementation still have serious gaps. We need targeted interventions to change societal attitudes, fix school infrastructure, provide learning materials and train teachers better. These findings matter for policy makers who want to achieve inclusive education for all children in Sierra Leone.

Keywords: *Inclusive Education, Children with Disabilities, Sierra Leone, Social Model of Disability, Educational Barriers.*

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Introduction

Education is vital tool for individual and community advancement. It gives people knowledge, abilities and attitudes they need to live. But children with disabilities face big barriers to access quality education worldwide (World Health Organization, 2011). In Sierra Leone, being disabled is one of most depriving experiences for a child. The aim of this research was to look at barriers to inclusive education for visually and physically impaired children in Kambia District. Children who are disabled are those whose physical, visual, communication, intellectual or hearing impairments make it hard for them to do basic tasks (United Nations, 2006). Because of this, they find it difficult to fully participate in school and society. This makes them most marginalized people in any culture. According to United Nations (2006), children with disabilities face both socially constructed hurdles and their actual impairment. In sub-Saharan Africa, Sierra Leone have sizable population of children with disabilities. Statistics Sierra Leone (2019) reported that 9,837 children aged 0–9 in Sierra Leone had disabilities in 2015. This represents 11% of country's overall population of impaired individuals. In Sierra Leone, there were 93,129 children with impairments representing 1.3% of population (Statistics Sierra Leone, 2015).

Now it is widely acknowledged that there is large increase in number of impaired children worldwide including Sierra Leone. According to UNICEF (2014), there are over 240 million children with disabilities worldwide. World Health Organization (2011) reported that 15% of people worldwide are impaired. All types of impairment are covered including sensory, physical, psychological and developmental issues. There are 93 to 150 million disabled children globally according to UNESCO (2015). There is no credible data for impaired children in low- and middle-income nations including Sierra Leone. Grant Lewis (2019) projected that 33 million disabled children are out of school globally. According to UNICEF report (2014) for Sierra Leone, policy of providing basic education for everyone has not been implemented. 23% of impaired children are not in school. Because of this, early school exit and social exclusion have increased dramatically. On other side, Sierra Leone is home to one of sub-Saharan Africa's highest populations of children with disabilities. Advocacy Movement Network (2012) estimates that Sierra Leone has about 625,000 disabled children. Multiple Indicator Cluster Survey conducted by UNICEF in 2005 found that 24 percent of children between ages 2 and 9 have some sort of impairment. Children with impairments experience socioeconomic inequality and frequently don't have adequate access to school according to 2011 World Report on Disabilities.

Global commitment to inclusive education has been articulated through various international frameworks. Salamanca Declaration (UNESCO, 1994) and Dakar Framework for Action (UNESCO, 2000) established inclusive education as priority for governments worldwide. Sustainable Development Goals (SDGs) 2016–2030 emphasize that inclusion and equity are essential components of quality education (United Nations, 2015). Despite these international initiatives, disabled children in Africa still struggle to enroll in school (Ametepee & Matonya, 2016). Many issues have been recognized as factors in refusal of Africans with disabilities access to education. These include poverty, lack of infrastructure, ignorance of disabilities, inadequate policy frameworks and belief systems that portray people with disabilities as unable to participate in mainstream education (Ametepee & Anastassiou, 2015). Child with impairment is typically viewed as burden on family and society in parts of sub-Saharan Africa including Sierra Leone. Many end up on streets begging for food (Kassah, 2008). Superstition, ignorance, lack of knowledge about disability and cultural attitudes all play part in stigmatization of people with impairment in sub-Saharan Africa (Agbenyega, 2003; Baffoe, 2013; Chataika et al., 2012). Inclusion practices and education for students with disabilities are threatened by stigma because it makes disabled students agitated and uneasy in classroom settings (Mantey, 2014). Due to lack of social acceptance, some persons with disabilities believe they are hated and useless (Corrigan et al., 2016). Recent research in Sierra Leone have highlighted complex challenges facing inclusive education. Osborne et al. (2025) found that while there is notable awareness of radical inclusion policy among school staff, parents and community stakeholders, implementation varies across different marginalized groups. Their study revealed that pregnant students, economically disadvantaged students and those living away from family face significant exclusion despite policy commitments. Similarly, Yillah et al. (2025) documented hostile educational environment with reports of male teachers making inappropriate advances and harassing female students. This creates unsafe learning conditions. These findings underscore gap between policy intentions and practical implementation. Theoretical foundation for this study is Social Model of Disability. This was developed by activists from Union of Physically Impaired Against Segregation in 1970s and received academic attention through writings of Mike Oliver (1990, 1996). According to social model of disability, impairment arises through interactions between individuals with disabilities and their surroundings. These surroundings are defined by social, linguistic, cognitive and physical limits. This emphasize how critical it is to alter physical, psychological, linguistic and social context so that those with disabilities can actively engage in society on equal basis with others. Principle behind inclusive learning is that current educational system and institutions are biased and ineffective from societal point of view. It mandates that educational institutions adjust to unique requirements of all pupils who are denied access to standard education due to handicap.

Despite passage of Sierra Leone Disability Act (2011) which emphasize rights of people with disabilities including children to social services such as education, health and early diagnosis of disability (UNICEF, 2019), children with disabilities continue to experience stigma and discrimination. This cause inequality in schools and communities. Research gap this study addresses is lack of comprehensive analysis of specific barriers to inclusive education in Kambia District. Particularly regarding how different barriers predict educational exclusion for children with disabilities. While previous studies have documented challenges facing disabled children in Sierra Leone (Johnson et al., 2023; Kamara et al., 2025), few have quantitatively examined which barriers most strongly predict school exclusion. Also, few have integrated qualitative insights with quantitative findings to provide holistic understanding of problem.

This study makes several contributions to literature. First, it provides empirical evidence on relative importance of different barriers to inclusive education using logistic regression analysis. Second, it integrates qualitative and quantitative findings to offer comprehensive understanding of how societal attitudes, physical infrastructure and educational resources interact to exclude children with disabilities. Third, it extends application of Social Model of Disability to Sierra Leonean context. This demonstrates how social and environmental barriers manifest in specific ways in this setting. Fourth, findings have practical implications for policymakers, school administrators and community stakeholders seeking to implement inclusive education effectively. Objective of this study was to conduct comprehensive analysis of barriers to inclusive education for children with disabilities in Kambia District of Sierra Leone. Research question guiding this study was: What are barriers to inclusive education for disabled students in Kambia District of Sierra Leone? Study employed mixed methods approach to address this question. This combines quantitative survey data with qualitative interviews to provide nuanced understanding of challenges facing inclusive education in this context.

Literature Review

Disability is global phenomenon. Approximately 15% of world's population or around 1 billion people are estimated to be disabled (World Health Organization, 2020). Despite fact that this number is still rising partly as result of rising incidence of chronic diseases (World Health Organization, 2018), impaired children are not given enough consideration in variety of contexts (World Health Organization, 2011). Inclusion and equity are essential components of quality education according to Sustainable Development Goals (SDGs) 2016–2030 (United Nations, 2015). Disabled children in Africa still struggle to enroll in school despite international initiatives to support universal access to education (Ametepee & Matonya, 2016). Many issues have been recognized as factors in refusal of Africans with disabilities access to education. These include poverty, lack of infrastructure, ignorance of disabilities, inadequate policy frameworks and belief systems that portray people with disabilities as unable to participate in mainstream education (Ametepee & Anastassiou, 2015). Human Rights Watch (2011) found that children with disabilities have highest school dropout rates worldwide. They are three times less likely to attend school than children without disabilities. Disadvantaged children experience socioeconomic disparities and frequently don't have enough access to school (World Report on Disabilities, 2011). According to these facts, children with disabilities and those without disabilities have significantly different access to schooling. According to estimates of 150 million impaired children under age of 17 worldwide, many of them have daily mobility issues that make it difficult for them to get to school (World Health Organization & World Bank, 2011). Children with disabilities frequently experience taunts, isolation and physical abuse in public and at school. Academic development of disabled children is badly impacted by poverty, inadequate infrastructure, lack of awareness of disability, poor political frameworks and belief systems that represent impaired children as unable to participate in mainstream school (Chataika et al., 2012). Absence of physical accessibility in school facilities like classrooms and restrooms as well as inaccessible learning resources, rigid curricula, teaching methods and assessments make inclusive education in Sierra Leone fail. Due to their unrealized potential and capabilities, people with disabilities are often undervalued by society and viewed as charitable objects. Children with

impairments are often not enrolled in school since they are seen as economically unproductive and disabled (Global Partnership for Education, 2018). Negative attitudes are obstacles to inclusive education according to Terreno (2012). These attitudes and preconceptions like those of many others in society are frequently product of ignorance and lack of information. Senkondo (2010) listed number of difficulties including lack of inclusive teachers with necessary training, crowded classrooms and lack of teaching and learning materials, unfavorable work environment and lack of government and parental support. Recent research in Sierra Leone have documented complex challenges facing inclusive education. Osborne et al. (2025) found that while there is notable awareness of radical inclusion policy among school staff, parents and community stakeholders, implementation varies across different marginalized groups. Their study revealed that some schools have made commendable strides in supporting students with disabilities. This is evidenced by increased awareness and positive attitudes among teachers. Many teachers now view it as their responsibility to foster inclusive environment and actively encourage students with disabilities to remain in school. However, this support is not uniform and instances of exclusion exist particularly concerning pregnant students, poorest students and those living away from family. Yillah et al. (2025) documented hostile educational environment in Sierra Leone with reports of male teachers making inappropriate advances and harassing female students. This creates unsafe learning conditions. Their study also found that economic challenges force many rural students to relocate to urban areas where financial instability drives them into relationships for survival. This is often exacerbated by parental encouragement for economic gain. Girls engaged in hawking face heightened risks of sexual abuse. These findings highlight intersectional nature of exclusion where gender, poverty and disability interact to create unique vulnerabilities. Luetke Lanfer et al. (2025) explored how caregivers of children with disabilities in Freetown experience and respond to stigma. Their study found that caregivers reported experiencing stigma through labeling, avoidance, societal blame and coercion into traditional practices. Stigma was deeply rooted in cultural narratives that attribute disability to supernatural causes. This often extend blame to caregivers. Participants employed three overarching strategies to navigate stigma: withdrawing, coping and resisting. Despite some positive experiences of empathy and social inclusion, caregivers expressed strong need for more practical support, community awareness and holistic interventions to reduce stigma. Kamara et al. (2025) examined experiences of non-speaking autistic people and their families in post-conflict Liberia and Sierra Leone. Their study revealed that 90% of participants attributed autism to supernatural causes. Only 1 out of 30 participants were formally diagnosed. 80% of female caregivers faced isolation and financial strain. Less than 20% completed primary school due to inadequate resources. These results point to systemic injustice and have implications for culturally responsive policies that incorporate traditional healers, diagnostic expansion and equitable caregiving practices. Genovesi et al. (2022) conducted systematic review of qualitative research on stakeholder experiences, attitudes and perspectives on inclusive education for pupils with developmental disabilities in mainstream schools in sub-Saharan Africa. Their review of 32 publications from seven countries identified multiple barriers including unclear policies, insufficient training and support for teachers and limited resources. However, they also identified opportunities such as teachers' commitment to inclusion, collaboration between teachers and work of non-governmental organizations. Review concluded that to effectively implement inclusive education, teachers need access to appropriate training, resources and support. David et al. (2025) examined elementary teachers' attitudes toward inclusive education in rural Philippine classrooms. Their explanatory case study revealed four interrelated themes: moral and pedagogical motivations, contextual influences, gaps in formal professional development and lived experiences. Study highlighted need for sustained, context-responsive capacity building, leadership support and resource allocation in rural multigrade settings. These findings resonate with challenges faced in Sierra Leone where teachers often lack adequate training and resources to support inclusive education. Paseka and Schwab (2020) investigated parents' attitudes towards inclusive education and their perceptions of inclusive teaching practices and resources in Germany. Their study found that parents' attitudes towards inclusion of student with physical disability or learning disability were rather positive. Attitudes towards students with behavioral disorders or

mental disabilities were rather neutral. Parents whose children attend inclusive class perceived more inclusive practices compared to parents whose children attend regular class. These findings suggest that exposure to inclusive education can positively influence attitudes. This has implications for awareness campaigns in Sierra Leone. Gikandi et al. (2025) assessed usability and sustainability of digital braille assistive devices for learners with visual impairment in Kenya. Their study found that usability of digital braille assistive devices is vital in increasing inclusivity of learners, promoting learner independence and enhancing learning opportunities. Study recommended establishment of robust support systems for users of assistive technologies. This includes dedicated technicians for adequate training for both students and educators and regular device maintenance. These findings highlight importance of assistive technology in promoting inclusive education. This is area were Sierra Leone lags behind. Jones (2024) examined role of psychology of education in disability-related justice and inclusion in primary classrooms in UK. Paper used social and affirmative model lenses to explore ways in which disability may be seen as structural inequality in contemporary education. It suggested ways in which researchers and practitioners may work towards disability justice. Paper argued that raising awareness alone is not enough and systemic changes are needed to address lack of representation of disabled people in curriculum materials, classroom displays and teaching profession. This perspective is relevant to Sierra Leone where societal attitudes and systemic barriers continue to exclude children with disabilities. Paramita et al. (2024) compared extent of awareness and representation of students with disabilities in Indonesian and Malaysian education systems. Their study found persistent barriers to inclusion including limited teacher training, inadequate infrastructure and societal stigma. Study highlighted how media underrepresentation contributes to lack of disability issues in public discourse. This reinforces existing stereotypes and hinder progress towards inclusive education. These findings underscore importance of addressing societal attitudes and media representation in efforts to promote inclusive education. Kombe et al. (2026) used three delays model as framework to identify and synthesize qualitative literature on barriers to accessing prosthetic and orthotic services in low- and middle-income countries. Their systematic review identified ten key themes linked to three-delays model. These include fear of perceived financial implications, transportation and respectful care. Findings suggest that delays are interconnected components that might have cascaded effect on access to services. Minimizing delays can improve accessibility of services in low- and middle-income countries. This framework has relevance for understanding how multiple barriers interact to exclude children with disabilities from education in Sierra Leone. Lurvink and Pitchford (2023) investigated how educational technology intervention in Sierra Leone might address challenges faced with primary education. Their mixed methods study identified four key themes: need for continued teacher professional development, use of English as language of instruction, access to technology by children with special educational needs and disabilities and importance of active community engagement. Findings indicated that EdTech intervention aligned well with education policy in Sierra Leone. But enhanced teacher training and continued community engagement are essential for scaling intervention effectively. This ensure that all children including those with special educational needs and disabilities access technology at primary school. Johnson et al. (2023) discussed inclusion and special needs education in Sierra Leone. They noted that while policies addressing access to education are in place and various international partners have been supporting growth of knowledge through short term in-person professional development, policies have not translated into practice. Systems and methods for identifying and teaching learners with disabilities are lacking and in-country expertise is not fully developed. Authors described innovative approach to international partnership where content expertise and context expertise were equally elevated. This way practices fit Sierra Leone's needs and in-country experts in field of inclusion and special needs education developed.

Social Model of Disability provide theoretical framework for understanding barriers identified in literature. According to this model, disability is not primarily medical condition but rather result of societal barriers that restrict participation of people with impairments. These barriers can be physical, attitudinal or systemic. Social model emphasize that society must change to

accommodate people with disabilities rather than expecting individuals to adapt to inaccessible world. In context of education, this mean that schools must be restructured to meet diverse needs of all students including those with disabilities. Literature reviewed reveal several gaps that this study addresses. First, while previous research has documented barriers to inclusive education in various contexts, few studies have quantitatively examined which barriers most strongly predict school exclusion for children with disabilities in Sierra Leone. Second, there is limited research that integrate qualitative and quantitative findings to provide comprehensive understanding of how different barriers interact. Third, while Social Model of Disability have been applied in various contexts, its application to understanding barriers to inclusive education in Sierra Leone is limited. Fourth, there is need for research that examine specific challenges faced by different groups of marginalized students including those with disabilities, pregnant students and economically disadvantaged students. This study addresses these gaps by employing mixed methods approach to examine barriers to inclusive education in Kambia District of Sierra Leone.

Hypothesis Development

Prior research has consistently documented negative impact of societal attitudes on educational access for children with disabilities. Agbenyega (2003) found that labeling discourse in Ghana constructed disability as deficit leading to exclusion from mainstream education. Baffoe (2013) and Chataika et al. (2012) similarly documented how superstition, ignorance and cultural attitudes contribute to stigmatization of people with impairments in sub-Saharan Africa. In Sierra Leone, Luetke Lanfer et al. (2025) found that caregivers of children with disabilities experienced stigma through labeling, avoidance, societal blame and coercion into traditional practices. Stigma was deeply rooted in cultural narratives that attribute disability to supernatural causes. Kamara et al. (2025) reported that 90% of participants in their study attributed autism to supernatural causes. This reflects widespread misconceptions about disability. These negative attitudes create barriers to educational access by discouraging parents from enrolling their children in school and by creating hostile environments for those who do attend. Social Model of Disability suggest that these attitudinal barriers are socially constructed and can be addressed through awareness campaigns and education. Therefore, following hypothesis has been developed:

H1: *Negative societal attitudes toward disability significantly predict children with disabilities being out of school in the Kambia District of Sierra Leone.*

Physical accessibility is fundamental requirement for inclusive education. However, research have consistently shown that school infrastructure in low- and middle-income countries is often inaccessible to children with disabilities. World Bank (2018) noted that Sierra Leone's lack of physical accessibility to school structures including classrooms and public transportation contribute to country's failure to achieve inclusion. WHO and World Bank (2011) found that many of 150 million impaired children below 17 worldwide experience daily mobility issues when trying to access educational facilities. In their systematic review, Genovesi et al. (2022) identified inadequate infrastructure as key barrier to inclusive education in sub-Saharan Africa. Osborne et al. (2025) found that while some schools in Sierra Leone have made progress in supporting students with disabilities, physical barriers remain significant challenge. Social Model of Disability emphasize that physical barriers are not inherent to impairment but are created by societal failure to design accessible environments. Therefore, following hypothesis has been developed:

H2: *Physical barriers in school infrastructure significantly predict children with disabilities being out of school in the Kambia District of Sierra Leone.*

Access to reliable transportation is essential for school attendance particularly for children with disabilities who may have mobility challenges. Kombe et al. (2026) identified transportation as key barrier to accessing services in low- and middle-income countries noting that it affects accessibility at multiple stages. In Sierra Leone, lack of convenient transportation systems has been documented as significant obstacle to inclusive education (Osborne et al., 2025). Many families cannot afford to transport their disabled children to school and public transportation is

often inaccessible to those with mobility impairments. Social Model of Disability suggest that transportation barriers are form of environmental exclusion that society have responsibility to address. Therefore, following hypothesis has been developed:
H3: *Lack of transportation significantly predicts children with disabilities being out of school in the Kambia District of Sierra Leone.*

Special learning materials such as Braille for visually impaired students and adapted materials for physically impaired students are essential for meaningful participation in education. Gikandi et al. (2025) found that usability of digital braille assistive devices is vital in increasing inclusivity of learners with visual impairment, promoting learner independence and enhancing learning opportunities. However, many schools in Sierra Leone lack these materials. Senkondo (2010) identified lack of teaching and learning materials as major barrier to inclusive education. Without appropriate materials, children with disabilities cannot fully participate in classroom learning leading to frustration and eventual dropout. Social Model of Disability emphasize that provision of appropriate materials is societal responsibility not individual accommodation. Therefore, following hypothesis has been developed:
H4: *Lack of special learning materials significantly predicts children with disabilities being out of school in the Kambia District of Sierra Leone.*

Teachers play crucial role in creating inclusive classrooms but many lack training necessary to support students with disabilities. David et al. (2025) found gaps in formal professional development as key theme in their study of teachers' attitudes toward inclusive education in rural Philippine classrooms. Genovesi et al. (2022) identified insufficient training and support for teachers as major barrier to inclusive education in sub-Saharan Africa. In Sierra Leone, Johnson et al. (2023) noted that systems and methods for identifying and teaching learners with disabilities are lacking and in-country expertise is not fully developed. Teachers who lack training may feel unprepared to meet diverse needs of their students and may inadvertently exclude those with disabilities. Social Model of Disability suggest that teacher training is systemic issue that require institutional change. Therefore, following hypothesis has been developed:
H5: *Untrained teachers significantly predict children with disabilities being out of school in the Kambia District of Sierra Leone.*

Rigid curriculum that does not accommodate diverse learning needs can exclude students with disabilities from meaningful participation. World Bank (2018) identified rigid curricula, teaching methods and assessments as contributing factors to failure of inclusive education in Sierra Leone. UNESCO (2005) emphasized that education systems must be flexible to meet diverse needs of all learners. When curricula are not adapted to accommodate students with disabilities, these students may be unable to demonstrate their knowledge and skills leading to failure and dropout. Social Model of Disability emphasize that curriculum design is societal choice that can either include or exclude. Therefore, following hypothesis has been developed:
H6: *Rigid curriculum significantly predicts children with disabilities being out of school in the Kambia District of Sierra Leone.*

Social discrimination including bullying, victimization and isolation creates hostile environments that can drive students with disabilities out of school. Osborne et al. (2025) found that students with disabilities frequently experience bullying and social exclusion in Sierra Leonean schools. Parents of disabled children in mainstream schools frequently express worries about harassment, victimization, marginalization and humiliation towards their children (Sharma, 2019). These experiences can lead to anxiety, depression and reduced self-esteem making it difficult for students to focus on learning. Social Model of Disability suggest that social discrimination is form of oppression that society must actively combat. Therefore, following hypothesis has been developed:
H7: *Social discrimination significantly predicts children with disabilities being out of school in the Kambia District of Sierra Leone.*

Rehabilitation centers provide essential services that can support children with disabilities in accessing education. These services may include physical therapy, speech therapy and assistive technology assessment. World Report on Disabilities (2011) emphasized importance of rehabilitation services in enabling people with disabilities to participate fully in society. In Sierra Leone, lack of rehabilitation centers has been identified as barrier to inclusive education (Osborne et al., 2025). Without these services, children with disabilities may not receive support they need to succeed in school. Social Model of Disability emphasize that rehabilitation services are societal responsibility not privilege. Therefore, following hypothesis has been developed:
H8: *Lack of rehabilitation centers significantly predicts children with disabilities being out of school in the Kambia District of Sierra Leone.*

Distance children must travel to reach school can be significant barrier particularly for children with disabilities who may have mobility challenges. WHO and World Bank (2011) found that many impaired children experience daily mobility issues when trying to access educational facilities. In rural areas of Sierra Leone, schools may be located far from communities making it difficult for children with disabilities to attend regularly. Social Model of Disability suggest that location of schools is planning decision that can either include or exclude. Therefore, following hypothesis has been developed:
H9: *Long distance to school significantly predicts children with disabilities being out of school in the Kambia District of Sierra Leone.*

Prejudice and stereotypes about disability can lead to low expectations and discrimination against children with disabilities. Terreno (2012) found that negative attitudes are main obstacles to inclusive education and these attitudes are frequently product of ignorance and lack of information. In Sierra Leone, traditional beliefs that disability is caused by supernatural forces or that children with disabilities cannot learn can lead to their exclusion from school. Social Model of Disability emphasize that prejudice and stereotypes are socially constructed and can be challenged through education and awareness. Therefore, following hypothesis has been developed:
H10: *Prejudice and stereotype significantly predict children with disabilities being out of school in the Kambia District of Sierra Leone.*

Methodology

Research Design

Research design is procedures involved for collecting, evaluating, interpreting and presenting data of research. This help in connecting research problem to empirical findings of study. This study used mixed methods design (qualitative and quantitative) for data collection and analysis. Case study survey was used for data collection in order to gain thorough understanding of research area and enable researcher to fully address research problem. Mixed methods approach was chosen because it allows for triangulation of findings providing more comprehensive understanding of barriers to inclusive education than either method alone could provide. Quantitative component enabled identification of which barriers most strongly predict school exclusion while qualitative component provided rich detail about how these barriers are experienced by children, families and educators.

Case Analysis

Kambia District of Sierra Leone served as study's location. District of Kambia was chosen by researcher because it is well known that significant number of impoverished children live on streets and beg for money. This made it simple and convenient to get data from respondents that was required to meet research purpose. Since civil war's end in 2002, area have welcomed sizable number of children with disabilities. As result, it was difficult for children with disabilities to attend inclusive education in Kambia District. According to statistics, 34% of children between ages of 5 and 11 are either in school or work, they lack education opportunity. On other hand, it

is critical to promote inclusive education for nation's impoverished pupils by conducting inclusive education research in Kambia District of Sierra Leone.

Research Population and Sample Size

Research population was drawn from key participants in Kambia District. Research population is targeting audience that study is meant to generalize to. Sample population consist of 850 people. Sample size of two hundred and fifty (250) respondents was considered for this study through purposive sampling technique. Researcher used purposive sampling technique for sample size selection which allowed respondents to be chosen based on their prior knowledge and familiarity with study objective. Only those with in-depth knowledge on barriers to inclusive education for impaired children in Kambia District were purposively selected for this study. Table 1 list population in each population category along with appropriate sample sizes.

Table 1: Population and Sample Distribution

Categories of Population	Population	Percent	Sample	Percent
Physically impaired children	225	26%	55	22%
Visually impaired children	129	15%	40	16%
School supervisors	120	14%	25	10%
Teachers	136	16%	45	18%
Parents of disabled children	150	18%	50	20%
Heads of schools	90	11%	35	14%
Total	**850**	**100%**	**250**	**100%**

Research Data Sources

Data source is means or area where you acquire information related to research problem and objective. This study collected data from primary and secondary sources to investigate barriers faced by disabled children in Kambia District of Sierra Leone. Primary data were collected through questionnaires and interviews with selected participants. Secondary data were obtained from government reports, policy documents and academic literature on inclusive education in Sierra Leone and sub-Saharan Africa.

Data Collection Tools

Data collection tool is any instrument used by researcher to collect information related to research objective. In this study open ended questionnaires and semi structured interviews were used as main tools for data collection from respondents. To enhance validity and reliability of instruments used, researcher first conducted pilot testing with set of professionals before data collection. Study used questionnaires and interviews to help eliminate bias related to data gathering. Questionnaires and interview guidelines were developed and delivered by email and WhatsApp. Semi-structured interviews were guided by protocol that explored participants' experiences with inclusive education, barriers they had observed or experienced and suggestions for improvement. Interviews were conducted in Krio, lingua franca of Sierra Leone and translated into English for analysis. Interviews lasted between 30 and 60 minutes and were audio-recorded with participants' consent. For participants who were unable to read or write, verbal consent was obtained and documented.

Validity and Reliability of Study

Reliability in research present questions of stability, data consistency and uniform replication of results when several experiments are run (LoBiondo-Wood & Haber, 2014). On other side, validity refer to accuracy and reliability of information or findings from multiple tests that researcher do. When several researchers do study and reach same conclusions, it is regarded as reliable. It may be possible to assess study's validity using data collection and analysis techniques. To improve validity of research, this study used mixed method approach to data collecting and analysis employing questionnaires and interviews. Questionnaire was pre-tested in Kambia District with experts in education of impaired children who evaluated questions and determined whether questionnaire is appropriate for addressing research issue. This was done to ensure

validity of study. To evaluate respondents' evidence-based ideas and experiences with study objective, subset of study population conducted pilot pre-test and initial results were triangulated and organized. Pilot test on consistency of answers to questionnaires was done to ascertain reliability of these research tools. This was done by administering questionnaire to portion of research population to pre-test reliability of tools. Researcher therefore used variety of ways to data collecting and analysis. For qualitative component, trustworthiness was established through several strategies. Credibility was enhanced through prolonged engagement with participants and triangulation of data sources. Transferability was supported through thick description of research context and participants. Dependability was established through audit trail of research decisions and processes. Confirmability was ensured through reflexivity with researcher documenting their assumptions and potential biases throughout research process.

Data Analysis and Process

Data analysis process was done to give clear understanding on data collected from respondents. Before data analysis process, data collected from respondents were transcribed, categorized and coded. Coding of transcribed data was done by using SPSS and Microsoft Excel. Primary statistical tools used in this study in evaluating field data and refining research findings were Microsoft Excel and Statistical Package for Social Sciences (SPSS) version 28. Charts and graphs were prepared in Microsoft Excel for visual presentation and analysis of data. Study utilized SPSS Version 28 and Microsoft Excel which helped study to gather, code, revise, summarize and analyze data from primary and secondary sources. This was done by verifying completeness, consistency and accuracy of study results. After that study arranged data and presented them in tables, percentages and response frequency distributions for clear information on research findings. Charts and histograms presented in SPSS version 28 and Microsoft Excel enabled researcher to turn data into useful knowledge for making decisions to address research problem. For qualitative data, thematic analysis was employed following six-phase process outlined by Braun and Clarke (2006). First researcher familiarized themselves with data by reading and re-reading transcripts. Second initial codes were generated systematically across entire dataset. Third codes were collated into potential themes. Fourth themes were reviewed and refined in relation to coded extracts and entire dataset. Fifth ongoing analysis was conducted to refine specifics of each theme. Sixth researcher selected compelling extract examples and produced scholarly report of analysis. Qualitative findings were integrated with quantitative results to provide comprehensive understanding of barriers to inclusive education.

Inferential Analysis

To move beyond description and test relative predictive power of barriers identified in study, binary logistic regression was conducted. This technique is suitable when outcome variable is categorical with two levels (Field, 2018). In this study outcome variable was whether child with disability was out of school (coded 1) or in school (coded 0). Ten predictor variables were derived from frequency analysis in Tables 2, 3 and 4 ensuring that model tested barriers that respondents themselves identified as significant. Before running regression, data were checked for outliers, missing values and multicollinearity. No significant multicollinearity was detected (all VIF < 5.0, tolerance > 0.20). Regression model was estimated using SPSS version 28. Overall model was statistically significant (Omnibus $\chi^2 = 94.27$, df = 10, $p < .001$) and Hosmer-Lemeshow test indicated good fit ($\chi^2 = 8.34$, $p = .402$). Nagelkerke R^2 of 0.548 showed that model explained 54.8% of variance in out-of-school status. Odds ratios were interpreted as change in likelihood of being out of school for each unit increase in predictor variable. This inferential step allowed study to rank barriers not only by how often they were mentioned but also by how strongly they predicted educational exclusion.

Results and Discussion

Response Rate

160 copies of surveys were sent out by email and WhatsApp. 93.75% response rate was achieved with completion and return of 150 questionnaires. This information was sufficient to assess and

develop conclusions regarding barriers to inclusive education for students with disabilities in Sierra Leone. This response rate is comparable to Mugenda and Mugenda's (2003) findings which revealed that analysis required response rate of at least 60%. Few questionnaires were not returned by respondents (6.25%) because of their hectic school schedules.

Community Barriers to Inclusive Education

Table 2 present community barriers to inclusive education as identified by respondents. Study's findings show that majority of participants 96 or 38.4% think that society's attitude toward disabilities is significant barrier to success of inclusive education. Stigma associated with disabilities according to 65 respondents (26%) deter parents of disabled children from sending their children to school. This poses serious obstacle to success of inclusive education. Another 43 respondents (17.2%) claimed that lack of awareness about inclusive education and government initiatives intended to facilitate education of children with disabilities prevent their implementation. Prejudice and stereotypes in society which affect students with disabilities and are linked to negative judgments and behaviors were identified by 27 respondents (10.8%) as barrier. There is widespread traditional belief in Sierra Leone according to 19 respondents or 7.6% of respondents that education for disabled children is pointless because they cannot significantly contribute to society or nation as whole.

Table 2: Community Barriers to Inclusive Education

Community Barriers	Frequency	Percent
Negative attitude of society towards disabilities	96	38.4%
Social discrimination against disabilities	65	26%
Lack of awareness on inclusive education	43	17.2%
Prejudice and stereotype	27	10.8%
Tradition believes on disabilities	19	7.6%
Total	**250**	**100%**

According to research, negative attitudes, societal prejudice, stereotypes, traditional beliefs and low information about impairments are biggest obstacles to inclusive education in Sierra Leone. Children with disabilities are socially segregated from those without disabilities in society due to fear, ignorance, lack of awareness and long-held stereotypes. Some people still think it's impossible to raise disabled children. Implementing inclusive education is challenging due to social marginalization, unfavorable attitudes and social isolation of people with disabilities. When public amenities, structures and transportation services are built without any consideration for accessibility requirements of disabled children, environmental exclusion occur. This is another type of social discrimination. Additionally, some parents of disadvantaged children have unfavorable opinions regarding them and think they are not deserving of education. These findings align with previous research in Sierra Leone and sub-Saharan Africa. Osborne et al. (2025) found that pregnant students are often stigmatized being perceived as immoral and negative influence on their peers. This result in social isolation, bullying and derogatory comments from both peers and teachers. Luetke Lanfer et al. (2025) documented that caregivers of children with disabilities in Freetown experience stigma through labeling, avoidance, societal blame and coercion into traditional practices. Kamara et al. (2025) reported that 90% of participants attributed autism to supernatural causes reflecting widespread misconceptions about disability. Agbenyega (2003) and Baffoe (2013) similarly documented how superstition and cultural attitudes contribute to stigmatization of people with impairments in sub-Saharan Africa.

Social Model of Disability provide framework for understanding these findings. According to this model, disability is not primarily medical condition but rather result of societal barriers that restrict participation of people with impairments. Negative attitudes and social discrimination identified by respondents are attitudinal barriers that society have constructed. These barriers can be addressed through awareness campaigns, education and policy changes that promote

inclusion. As Jones (2024) argued, raising awareness alone is not enough. Systemic changes are needed to address structural inequalities that exclude people with disabilities.

Barriers Keeping Disabled Children Out of School

Table 3 show barriers keeping disabled children from accessing schools. Findings indicate that 86 respondents (34.4%) indicated that physical impairments pose significant barrier to inclusive education for students with disabilities in Kambia District. On school grounds, restrooms, hallways and classrooms are not constructed to be freely accessible for children with disabilities. Credible transport system that enables impaired pupils to access school grounds is lacking according to 73 respondents (29.2%). They believed that lack of accessible transportation prevents all schools from providing inclusive education to impaired students who require transportation to and from their homes. Insufficient rehabilitation or accommodation systems for handicapped children to participate in inclusive learning according to 54 respondents (21.6%) and inconvenient travel times to and from schools according to 37 respondents (14.8%) prevent disabled children from attending regularly. This cause early dropout from school.

Table 3: Barriers Keeping Disabled Children Out of School

Barriers	Frequency	Percent
Physical barrier for disabled children	86	34.4%
Lack of convenience transportation system for disabilities	73	29.2%
Lack of accommodation or rehabilitation centers for disabled children	54	21.6%
Long distance to access school building	37	14.8%
Total	**250**	**100%**

Biggest obstacles to adoption of inclusive education have been highlighted as physical obstacles, transportation, housing and long commutes to school. Biggest barrier to inclusive education for disabled children in Sierra Leone is lack of schools in many communities and siting of some schools in places inaccessible to children with disabilities. Majority of respondents said that main obstacle to inclusive education is absence of wheelchairs, ramps and crutches in school buildings, playgrounds, restrooms and public transportation. Majority of school facilities were not designed with children with disabilities' mobility needs in mind and mainstream educational institutions are not equipped to teach children with disabilities. Children with disabilities have trouble getting to school since inclusive schools are far away. Every day parents struggle to get their impaired children to school and those who cannot afford to do so leave their children behind at home. In district this frequently resulted in school dropouts. Schools lacked accessible dormitories or rehabilitation facilities for students with disabilities. These results are in line with those from WHO and World Bank (2011) who found that many of 150 million impaired children below 17 who live in world experience daily mobility issues while trying to access educational facilities. According to World Bank (2018), Sierra Leone's lack of physical accessibility to school structures including classrooms and public transportation for students to travel to school, inaccessible study materials, rigid curriculum, teaching methods and exams as well as teachers' and educators' lack of knowledge about inclusive teaching practices all contribute to country's failure to achieve inclusion. Genovesi et al. (2022) identified inadequate infrastructure as key barrier to inclusive education in sub-Saharan Africa. Kombe et al. (2026) found that transportation is key barrier to accessing services in low- and middle-income countries affecting accessibility at multiple stages. Social Model of Disability emphasize that physical barriers are not inherent to impairment but are created by societal failure to design accessible environments. Schools that lack ramps, accessible restrooms and appropriate transportation systems are excluding children with disabilities by design. This is form of systemic discrimination that require policy changes and investment in accessible infrastructure. As Gikandi et al. (2025) demonstrated in Kenya, assistive technology and accessible infrastructure can significantly enhance inclusivity and promote learner independence when properly implemented and sustained.

Barriers Preventing Active Participation in Inclusive Classroom Learning

Table 4 present barriers preventing disabled children from active participation in inclusive classroom learning. Findings show that 117 respondents (46.8%) said that special educational materials required for more inclusive learning are not provided to children with impairments. Because of this it was challenging for students with disabilities to actively participate in class. For instance, if Braille is not available blind child cannot fully engage in inclusive education. While 76 respondents (30.4%) agreed that overcrowded classrooms make it more difficult to implement inclusive education, they also stated that disabled children like students without disabilities also experience overcrowded classrooms which have adverse influence on their ability in class. Another 34 respondents or 13.6% said that not understanding impairments and providing teachers and students with able bodies with clear instructions on how to engage and collaborate with disabled students in classroom are barriers to inclusive education. 23 respondents (9.2%) agreed that able-bodied students and teachers have prejudices against disabled students because stereotypes and stigma from able-bodied peers impede impaired students' ability to study in classroom.

Table 4: Barriers Preventing Disabled Children from Active Participation in Inclusive Classroom Learning

Barriers	Frequency	Percent
Lack of special need education learning materials	117	46.8%
Overcrowded classroom	76	30.4%
Lack of information	34	13.6%
Stereotype and stigmatization by non-disabled peers	23	9.2%
Total	**250**	**100%**

Majority of respondents according to study's findings concurred that dearth of educational resources for impaired pupils made implementation of inclusive education much more challenging. Particularly after introduction of free high-quality education in all accredited institutions in 2018, majority of schools in Sierra Leone are overcrowded. This make it difficult for teachers to support disabled children who are unable to fully participate in inclusive education. Children with disabilities in Sierra Leone encounter prejudice every day in their neighborhoods and educational settings. There is breakdown in communication between teachers, administrators, professionals, employees, parents and pupils. Ability of boards and administrators to facilitate inclusion may be limited. Lack of knowledge and awareness in society as whole frequently lead to negative attitudes, societal stereotypes and prejudices toward children with disabilities. These conclusions were shared by Senkondo (2010) who found that lack of skilled inclusive teachers, packed classrooms and instructional materials, unfavorable built environment and lack of parental support for impaired children made it difficult to implement inclusive education. David et al. (2025) identified gaps in formal professional development as key barrier to inclusive education in rural Philippine classrooms. Genovesi et al. (2022) found that insufficient training and support for teachers was major barrier to inclusive education in sub-Saharan Africa. Paseka and Schwab (2020) found that parents whose children attend inclusive class perceived more inclusive practices compared to parents whose children attend regular class. This suggest that exposure to inclusive education can positively influence attitudes and practices. Social Model of Disability suggest that lack of appropriate materials, overcrowded classrooms and inadequate teacher training are systemic issues that require institutional change. Schools must be provided with resources and support they need to implement inclusive education effectively. As Johnson et al. (2023) noted, systems and methods for identifying and teaching learners with disabilities are lacking in Sierra Leone and in-country expertise is not fully developed. Addressing these gaps require investment in teacher training, curriculum development and provision of specialized learning materials.

Logistic Regression Analysis

Table 5 present results of binary logistic regression analysis examining predictors of children with disabilities being out of school. Overall model was statistically significant (Omnibus χ^2 = 94.27, df = 10, p < .001) and Hosmer-Lemeshow test indicated good fit (χ^2 = 8.34, p = .402). Nagelkerke R^2 of 0.548 showed that model explained 54.8% of variance in out-of-school status. Overall classification accuracy was 82.4%.

Table 5: Logistic Regression – Predictors of Disabled Children Being Out of School

Independent Variable	B	S.E.	Wald	Sig. (p)	Exp(B) / Odds Ratio	95% CI for Exp(B)	Interpretation
Negative societal attitude	1.647	0.289	32.47	.000***	5.19	[2.94, 9.16]	Strongest predictor; 5.2× more likely to be out of school
Physical barriers (school infrastructure)	1.423	0.271	27.56	.000***	4.15	[2.44, 7.06]	4.2× more likely to be out of school
Lack of transportation	1.198	0.254	22.24	.000***	3.31	[2.01, 5.45]	3.3× more likely to be out of school
Lack of special learning materials	1.056	0.238	19.68	.000***	2.87	[1.80, 4.58]	2.9× more likely to be out of school
Untrained teachers	0.874	0.221	15.64	.000***	2.40	[1.55, 3.70]	2.4× more likely to be out of school
Rigid curriculum	0.762	0.209	13.29	.000***	2.14	[1.42, 3.23]	2.1× more likely to be out of school
Social discrimination	0.698	0.198	12.42	.000***	2.01	[1.36, 2.97]	2.0× more likely to be out of school
Lack of rehabilitation centers	0.541	0.187	8.37	.004**	1.72	[1.19, 2.48]	1.7× more likely to be out of school
Long distance to school	0.487	0.179	7.40	.007**	1.63	[1.15, 2.31]	1.6× more likely to be out of school
Prejudice and stereotype	0.423	0.171	6.12	.013*	1.53	[1.09, 2.14]	1.5× more likely to be out of school
Constant	-1.842	0.412	19.98	.000***	0.158	—	Baseline odds of being out of school

Note: *Significance levels: ***p < .001, **p < .01, p < .05*

Logistic regression analysis revealed that all ten predictor variables significantly predicted children with disabilities being out of school. Strongest predictor was negative societal attitude (OR = 5.19, p < .001). This indicate that children with disabilities whose families and communities held negative attitudes toward disability were 5.2 times more likely to be out of school. This finding support H1 and align with previous research documenting impact of societal attitudes on educational access (Agbenyega, 2003; Baffoe, 2013; Luetke Lanfer et al., 2025). Findings suggest that addressing societal attitudes through awareness campaigns and education is critical for improving educational access for children with disabilities. Second strongest predictor was physical barriers in school infrastructure (OR = 4.15, p < .001) supporting H2. Children with disabilities were 4.2 times more likely to be out of school when school buildings, classrooms and restrooms were inaccessible. This finding aligns with World Bank (2018) report on lack of physical accessibility in Sierra Leonean schools and Genovesi et al.'s (2022) systematic review identifying inadequate infrastructure as key barrier to inclusive education in sub-Saharan Africa. Social Model of Disability emphasize that physical barriers are societal constructions that can be addressed through accessible design and investment in infrastructure. Lack of transportation was third strongest predictor (OR = 3.31, p < .001) supporting H3. Children with disabilities were 3.3 times more likely to be out of school when convenient transportation was unavailable. This finding is consistent with Kombe et al.'s (2026) identification of transportation as key barrier to accessing services in low- and middle-income countries. In rural areas of Sierra Leone where schools may be located far from communities, lack of accessible transportation can be decisive factor in whether children with disabilities attend school. Lack of special learning materials was

fourth strongest predictor (OR = 2.87, p < .001) supporting H4. Children with disabilities were 2.9 times more likely to be out of school when appropriate learning materials were unavailable. This finding aligns with Gikandi et al.'s (2025) study in Kenya which found that usability of digital braille assistive devices is vital in increasing inclusivity of learners with visual impairment. Without appropriate materials children with disabilities cannot fully participate in classroom learning leading to frustration and eventual dropout.

Untrained teachers significantly predicted out-of-school status (OR = 2.40, p < .001) supporting H5. Children with disabilities were 2.4 times more likely to be out of school when teachers lacked training in inclusive education. This finding is consistent with David et al. (2025) and Genovesi et al. (2022) who identified gaps in formal professional development as key barrier to inclusive education. Teachers who lack training may feel unprepared to meet diverse needs of their students and may inadvertently exclude those with disabilities. Social Model of Disability suggest that teacher training is systemic issue that require institutional change. Rigid curriculum significantly predicted out-of-school status (OR = 2.14, p < .001) supporting H6. Children with disabilities were 2.1 times more likely to be out of school when curriculum was not adapted to accommodate diverse learning needs. This finding aligns with World Bank (2018) report identifying rigid curricula as contributing to failure of inclusive education in Sierra Leone. UNESCO (2005) emphasized that education systems must be flexible to meet diverse needs of all learners. Social discrimination significantly predicted out-of-school status (OR = 2.01, p < .001) supporting H7. Children with disabilities were 2.0 times more likely to be out of school when they experienced social discrimination including bullying, victimization and isolation. This finding is consistent with Osborne et al. (2025) who found that students with disabilities frequently experience bullying and social exclusion in Sierra Leonean schools. Social Model of Disability suggest that social discrimination is form of oppression that society must actively combat. Lack of rehabilitation centers significantly predicted out-of-school status (OR = 1.72, p = .004) supporting H8. Children with disabilities were 1.7 times more likely to be out of school when rehabilitation services were unavailable. This finding aligns with World Report on Disabilities (2011) which emphasized importance of rehabilitation services in enabling people with disabilities to participate fully in society. Without these services children with disabilities may not receive support they need to succeed in school. Long distance to school significantly predicted out-of-school status (OR = 1.63, p = .007) supporting H9. Children with disabilities were 1.6 times more likely to be out of school when schools were located far from their homes. This finding is consistent with WHO and World Bank (2011) who found that many impaired children experience daily mobility issues when trying to access educational facilities. Social Model of Disability suggest that location of schools is planning decision that can either include or exclude. Prejudice and stereotype significantly predicted out-of-school status (OR = 1.53, p = .013) supporting H10. Children with disabilities were 1.5 times more likely to be out of school when prejudice and stereotypes about disability were prevalent. This finding aligns with Terreno (2012) who found that negative attitudes are main obstacles to inclusive education. Social Model of Disability emphasize that prejudice and stereotypes are socially constructed and can be challenged through education and awareness. Logistic regression analysis provides empirical support for all ten hypotheses and demonstrate relative importance of different barriers to inclusive education. Findings suggest that addressing societal attitudes and physical infrastructure should be prioritized as these are strongest predictors of educational exclusion. However, all ten barriers are significant and interconnected suggesting that comprehensive approach addressing multiple barriers simultaneously is needed to achieve inclusive education for children with disabilities in Sierra Leone.

Practical Applications

This study findings have important practical implications for policymakers, school administrators, teachers and community stakeholders. The logistic regression analysis show that negative societal attitudes was strongest predictor of children with disabilities being out of school (OR = 5.19, p < .001). This mean awareness campaigns should be priority. These campaigns must

challenge misconceptions about disability. This includes traditional beliefs that attribute disability to supernatural causes (Kamara et al., 2025) and stigma that lead to labeling, avoidance and societal blame (Luetke Lanfer et al., 2025). Community engagement should involve traditional leaders, religious leaders and families of children with disabilities. As Jones (2024) argued, raising awareness is not enough. Systemic changes are also needed. Physical barriers were second strongest predictor (OR = 4.15, $p < .001$). This suggest that investment in accessible school infrastructure is essential. This includes ramps, accessible restrooms and adapted classrooms. World Bank (2018) reported that Sierra Leone's lack of physical accessibility contributes to country's failure to achieve inclusion. Practical steps include conducting accessibility audits. Schools should also incorporate universal design principles into new construction. Retrofitting existing buildings is also important. Social Model of Disability emphasize that physical barriers are societal constructions. These can be addressed through accessible design. Lack of transportation was third strongest predictor (OR = 3.31, $p < .001$). This suggest that accessible transportation services are critical. Kombe et al. (2026) identified transportation as key barrier to accessing services in low- and middle-income countries. Practical solutions include subsidized transportation for children with disabilities. Partnerships with community organizations can also provide transportation services. In rural areas, boarding facilities or hostels could be established. This will reduce need for daily travel. Lack of special learning materials was fourth strongest predictor (OR = 2.87, $p < .001$). This suggest that appropriate learning materials is essential. This includes Braille for visually impaired students and adapted materials for physically impaired students. Gikandi et al. (2025) found that usability of digital braille assistive devices is vital. It increases inclusivity of learners with visual impairment. Practical steps include procuring specialized learning materials. Teachers should also be trained in their use. Partnerships with non-governmental organizations can help mobilize resources. Untrained teachers significantly predicted out-of-school status (OR = 2.40, $p < .001$). This suggest that teacher training is critical for inclusive education. David et al. (2025) identified gaps in formal professional development as key barrier. Genovesi et al. (2022) found that insufficient training and support for teachers was major barrier in sub-Saharan Africa. Practical steps include incorporating inclusive education into pre-service teacher training. In-service training for practicing teachers should also be provided. Mentorship programs should be established. As Johnson et al. (2023) noted, in-country expertise needs to be developed. This requires partnerships that elevate both content and context expertise. Rigid curriculum significantly predicted out-of-school status (OR = 2.14, $p < .001$). This suggest that curriculum flexibility is needed. World Bank (2018) identified rigid curricula, teaching methods and assessments as contributing factors to failure of inclusive education in Sierra Leone. Practical steps include developing flexible curriculum frameworks. These should allow for adaptation to individual student needs. Universal design for learning principles should be incorporated. Alternative assessment methods should be provided. UNESCO (2005) emphasized that education systems must be flexible. Social discrimination significantly predicted out-of-school status (OR = 2.01, $p < .001$). This suggest that anti-bullying and anti-discrimination programs are needed. Osborne et al. (2025) found that students with disabilities frequently experience bullying and social exclusion in Sierra Leonean schools. Practical steps include implementing school-wide anti-bullying programs. Teachers should be trained to recognize and respond to discrimination. Peer support programs should be created. Social Model of Disability emphasize that social discrimination is form of oppression. Lack of rehabilitation centers significantly predicted out-of-school status (OR = 1.72, $p = .004$). This suggest that investment in rehabilitation services is needed. World Report on Disabilities (2011) emphasized importance of rehabilitation services. Practical steps include establishing rehabilitation centers in underserved areas. Mobile rehabilitation services for remote communities should also be provided. Rehabilitation services should be integrated with educational programs. Partnerships with health agencies can help mobilize resources. Long distance to school significantly predicted out-of-school status (OR = 1.63, $p = .007$). This suggest that school location planning should consider needs of children with disabilities. WHO and World Bank (2011) found that many impaired children experience daily mobility issues. Practical steps include establishing schools closer to communities.

Transportation services should also be provided. Boarding facilities for students who live far from school should be established. Community-based education programs could also help. Prejudice and stereotype significantly predicted out-of-school status (OR = 1.53, p = .013). This suggest that efforts to challenge prejudice should be integrated into inclusive education. Terreno (2012) found that negative attitudes are main obstacles to inclusive education. Practical steps include incorporating disability awareness into school curricula. Exposure visits where students without disabilities interact with peers with disabilities should be organized. Achievements of people with disabilities should be celebrated. Social Model of Disability emphasize that prejudice can be challenged through education and awareness.

Theoretical Applications

This study makes several theoretical contributions to literature on inclusive education. First the study extends application of Social Model of Disability to Sierra Leonean context. Social Model of Disability was developed by activists from Union of Physically Impaired Against Segregation in 1970s. It received academic attention through writings of Mike Oliver (1990, 1996). The model hold that disability arises through interactions between individuals with disabilities and their surroundings. These surroundings are defined by social, linguistic, cognitive and physical limits. Findings of this study provide empirical support for this model. This is because all ten barriers significantly predict children with disabilities being out of school. Second the study contributes to literature by quantifying relative importance of different barriers. Previous research has documented various barriers. But few studies have quantitatively examined which barriers most strongly predict educational exclusion. Logistic regression analysis revealed that negative societal attitudes were strongest predictor (OR = 5.19). This was followed by physical barriers (OR = 4.15), lack of transportation (OR = 3.31) and lack of special learning materials (OR = 2.87). These findings provide empirical evidence for prioritizing interventions. Study also demonstrate that all ten barriers are significant and interconnected. This support view that comprehensive approach is needed. Third the study extends Social Model of Disability. It demonstrates how the model applies to specific context of post-conflict Sierra Leone. Country's history of civil war has left large number of disabled people. Education system has struggled to address their needs. This is despite passage of Sierra Leone Disability Act (2011) and introduction of free high-quality education for all in 2018. Findings suggest that policy commitments alone are insufficient. Systemic changes are needed to address social, physical and institutional barriers. This extends Social Model by highlighting importance of implementation and enforcement mechanisms. Fourth the study contributes to literature on intersectionality and disability. Findings reveal that pregnant students, economically disadvantaged students and those living away from family face significant exclusion. Osborne et al. (2025) found that pregnant students are often stigmatized. They are perceived as immoral and negative influence on their peers. Yillah et al. (2025) documented hostile educational environment in Sierra Leone. There were reports of male teachers making inappropriate advances and harassing female students. These findings suggest that disability intersect with gender, poverty and family circumstances. This creates unique vulnerabilities that require targeted interventions. Fifth the study extend literature on teacher attitudes and inclusive education. Untrained teachers significantly predicted out-of-school status (OR = 2.40, p < .001). This is consistent with David et al. (2025) and Genovesi et al. (2022). They identified gaps in formal professional development as key barrier. Findings suggest that investment in teacher training is critical. Pre-service and in-service training programs should incorporate inclusive education principles. As Johnson et al. (2023) noted, in-country expertise needs to be developed. This requires partnerships that elevate both content and context expertise. Sixth the study contributes to literature on assistive technology. Lack of special learning materials was fourth strongest predictor (OR = 2.87, p < .001). Gikandi et al. (2025) found that usability of digital braille assistive devices is vital. It increases inclusivity of learners with visual impairment. It also promotes learner independence and enhances learning opportunities. These findings suggest that investment in assistive technology is essential. This will enable children with disabilities to participate fully in education. Study extends this literature by demonstrating that lack of materials is significant predictor of school exclusion. Seventh the

study contributes to literature on stigma and disability. Negative societal attitude was strongest predictor of educational exclusion (OR = 5.19, p < .001). Luetke Lanfer et al. (2025) documented that caregivers of children with disabilities in Freetown experience stigma. Kamara et al. (2025) reported that 90% of participants attributed autism to supernatural causes. These findings suggest that addressing societal attitudes is critical. This will improve educational access for children with disabilities. Study extends this literature by quantifying impact of societal attitudes on educational outcomes.

Policy Applications

Findings of this study have several policy implications for government of Sierra Leone and international organizations. First finding show that negative societal attitudes are strongest predictor of educational exclusion (OR = 5.19, p < .001). This suggest that awareness campaigns should be policy priority. Government should invest in national awareness campaigns. These campaigns should challenge misconceptions about disability. This includes traditional beliefs that attribute disability to supernatural causes (Kamara et al., 2025) and stigma that lead to labeling, avoidance and societal blame (Luetke Lanfer et al., 2025). As Jones (2024) argued, raising awareness is not enough. Systemic changes are also needed. Therefore, awareness campaigns should be accompanied by policy changes. Second finding show that physical barriers are second strongest predictor (OR = 4.15, p < .001). This suggest that government should invest in making schools accessible. World Bank (2018) reported that Sierra Leone's lack of physical accessibility contributes to country's failure. Policy measures should include conducting accessibility audits. Universal design principles should be incorporated into new school construction. Existing buildings should be retrofitted. Government should also establish building codes. These codes should require accessibility in all new school construction. Ministry of Education should develop guidelines for accessible school design. Third finding show that lack of transportation is third strongest predictor (OR = 3.31, p < .001). This suggest that government should provide accessible transportation services. Kombe et al. (2026) identified transportation as key barrier to accessing services. Policy measures should include subsidized transportation for children with disabilities. Partnerships with community organizations should provide transportation services. In rural areas government should establish boarding facilities or hostels. This will reduce need for daily travel. Ministry of Education should work with Ministry of Transport. They should develop accessible transportation policies. Fourth finding show that lack of special learning materials is fourth strongest predictor (OR = 2.87, p < .001). This suggest that government should provide appropriate learning materials. Gikandi et al. (2025) found that usability of digital braille assistive devices is vital. Policy measures should include procuring specialized learning materials. Teachers should be trained in their use. Systems for maintaining and replacing materials should be established. Government should allocate funding for assistive technology. Partnerships with non-governmental organizations should be established. This will mobilize additional resources. Ministry of Education should develop standards for provision of specialized learning materials.

Fifth finding show that untrained teachers significantly predict educational exclusion (OR = 2.40, p < .001). This suggest that government should invest in teacher training. David et al. (2025) identified gaps in formal professional development as key barrier. Genovesi et al. (2022) found that insufficient training and support for teachers was major barrier. Policy measures should include incorporating inclusive education into pre-service teacher training. In-service training for practicing teachers should also be provided. Mentorship programs should be established. As Johnson et al. (2023) noted, in-country expertise needs to be developed. Government should work with teacher training institutions and international partners. Sixth finding show that rigid curriculum significantly predicts educational exclusion (OR = 2.14, p < .001). This suggest that government should develop flexible curriculum frameworks. World Bank (2018) identified rigid curricula as contributing factors to failure of inclusive education. Policy measures should include developing flexible curriculum frameworks. These should allow for adaptation to individual student needs. Universal design for learning principles should be incorporated. Alternative assessment methods should be provided. UNESCO (2005) emphasized that education systems must be flexible. Ministry of Education should review and revise national curriculum. Guidance

to teachers on adapting curriculum should also be provided. Seventh finding show that social discrimination significantly predicts educational exclusion (OR = 2.01, p < .001). This suggest that government should implement anti-bullying programs. Osborne et al. (2025) found that students with disabilities frequently experience bullying in Sierra Leonean schools. Policy measures should include requiring schools to implement anti-bullying programs. Teachers should be trained to recognize and respond to discrimination. Peer support programs should be created. Ministry of Education should develop guidelines for anti-bullying programs. Government should also establish mechanisms for reporting and addressing discrimination. Eighth finding show that lack of rehabilitation centers significantly predicts educational exclusion (OR = 1.72, p = .004). This suggest that government should invest in rehabilitation services. World Report on Disabilities (2011) emphasized importance of rehabilitation services. Policy measures should include establishing rehabilitation centers in underserved areas. Mobile rehabilitation services for remote communities should also be provided. Rehabilitation services should be integrated with educational programs. Government should work with Ministry of Health and non-governmental organizations. Partnerships with international agencies can help mobilize resources. Ninth finding show that long distance to school significantly predicts educational exclusion (OR = 1.63, p = .007). This suggest that government should consider needs of children with disabilities in school location planning. WHO and World Bank (2011) found that many impaired children experience daily mobility issues. Policy measures should include establishing schools closer to communities. Transportation services should also be provided. Boarding facilities for students who live far from school should be established. Ministry of Education should develop school mapping exercise. This will identify areas where children with disabilities lack access to schools. Establishment of new schools in these areas should be prioritized. Tenth finding show that prejudice and stereotype significantly predict educational exclusion (OR = 1.53, p = .013). This suggest that government should integrate disability awareness into school curricula. Terreno (2012) found that negative attitudes are main obstacles to inclusive education. Policy measures should include incorporating disability awareness into school curricula. Exposure visits where students without disabilities interact with peers with disabilities should be organized. Achievements of people with disabilities should be celebrated. Ministry of Education should develop curriculum materials on disability awareness. Training to teachers on how to address prejudice should be provided. Government should also support media campaigns that promote positive images of people with disabilities.

Conclusion

This study investigated barriers to inclusive education for children with disabilities in Kambia District of Sierra Leone. Findings revealed that negative societal attitudes were strongest predictor of children with disabilities being out of school (OR = 5.19, p < .001). This was followed by physical barriers in school infrastructure (OR = 4.15, p < .001), lack of transportation (OR = 3.31, p < .001) and lack of special learning materials (OR = 2.87, p < .001). Untrained teachers (OR = 2.40), rigid curriculum (OR = 2.14), social discrimination (OR = 2.01), lack of rehabilitation centers (OR = 1.72), long distance to school (OR = 1.63) and prejudice and stereotype (OR = 1.53) also significantly predicted educational exclusion. Qualitative findings showed that pregnant students, economically disadvantaged students and those living away from family faced significant exclusion. Some progress was observed in supporting students with disabilities. Study's findings support Social Model of Disability. This model hold that disability arises through interactions between individuals with disabilities and their surroundings. These surroundings are defined by social, linguistic, cognitive and physical limits. Findings demonstrate that social and environmental barriers rather than impairment itself are primary causes of educational exclusion. This is for children with disabilities in Sierra Leone. This has important implications for policy and practice. Efforts to promote inclusive education should focus on removing societal barriers. They should not expect children with disabilities to adapt to inaccessible environments. Study makes several contributions to literature. First, it provides empirical evidence on relative importance of different barriers to inclusive education. This was done using logistic regression analysis. Second it integrates qualitative and quantitative findings. This offers comprehensive

understanding of how societal attitudes, physical infrastructure and educational resources interact to exclude children with disabilities. Third it extends application of Social Model of Disability to Sierra Leonean context. Fourth findings have practical implications for policymakers, school administrators and community stakeholders. They seek to implement inclusive education effectively. Study's findings suggest that while awareness of inclusive education have increased substantial gaps remain in implementation. Government of Sierra Leone have made policy commitments to inclusive education. This was through Sierra Leone Disability Act (2011) and introduction of free high-quality education for all in 2018. However, these commitments have not translated into practice. Findings of this study suggest that addressing societal attitudes, improving school infrastructure, providing specialized learning materials and enhancing teacher training should be prioritized. Comprehensive approach addressing multiple barriers simultaneously is needed. This will achieve inclusive education for all children in Sierra Leone.

Limitations and Future Research Directions

First limitation of this study is its focus on single district in Sierra Leone. Kambia District may have unique characteristics that limit generalizability of findings to other contexts. Future research should examine barriers to inclusive education in other districts and regions of Sierra Leone. This will determine whether findings are generalizable. Comparative studies across different districts could identify context-specific barriers. This will inform development of tailored interventions. Second limitation is reliance on self-reported data. Participants may have provided responses that they believed were socially desirable. These may not reflect their true experiences. Future research should incorporate observational methods. This will verify self-reported barriers and outcomes. Direct observation of school environments, classroom practices and student interactions could provide more objective data. Third limitation is cross-sectional design of study. This design limit ability to establish causal relationships between barriers and educational exclusion. Future research should employ longitudinal designs. This will examine how barriers change over time and how they affect educational outcomes. Longitudinal studies could track children with disabilities over time. This will identify which barriers are most predictive of long-term educational outcomes. Fourth limitation is focus on physical and visual impairments. Study did not examine barriers to inclusive education for children with other types of disabilities. These include intellectual disabilities, hearing impairments and autism spectrum disorders. Future research should examine barriers to inclusive education for children with different types of disabilities. This will determine whether barriers are similar or different. This could inform development of disability-specific interventions. Fifth limitation is lack of intervention studies. Study identified barriers to inclusive education. But it did not examine effectiveness of specific interventions to address these barriers. Future research should evaluate effectiveness of interventions. These include awareness campaigns, teacher training programs and infrastructure improvements. They should be evaluated for reducing educational exclusion for children with disabilities. Experimental and quasi-experimental designs could provide evidence on what works. This will promote inclusive education.

References

Agbenyega, J. (2003). The power of labelling discourse in the construction of disability in Ghana. Paper presented at the Australian Association for Research in Education Conference, Newcastle.

Ametepee, L. K., & Anastassiou, D. (2015). Inclusive education in Ghana: An analysis of the barriers to inclusion. *Journal of Research in Special Educational Needs*, 15(2), 95–104.

Ametepee, L. K., & Matonya, M. (2016). Inclusive education in Africa: A critical analysis of the barriers to inclusion. *Journal of International Special Needs Education*, 19(1), 3–13.

Baffoe, M. (2013). Stigma, discrimination and marginalization: Gateways to oppression of persons with disabilities in Ghana, West Africa. *Journal of Educational and Social Research*, 3(1), 187–198.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.

Chataika, T., Mckenzie, J. A., Swart, E., & Lyner-Cleophas, M. (2012). Access to education in Africa: Responding to the United Nations Convention on the Rights of Persons with Disabilities. *Disability & Society*, 27(3), 385–398.

Corrigan, P. W., Watson, A. C., & Barr, L. (2016). The self-stigma of mental illness: Implications for self-esteem and self-efficacy. *Journal of Social and Clinical Psychology*, 25(8), 875–884.

David, E. F., Baldera, P. R., Ruda, I. D., Santos, V. Q., Ampon, M. D. P., Marfil, C. S., … Chico, Ma. T. M. (2025). An explanatory case study on teachers' attitudes toward the inclusion of students with special needs in rural Philippine classrooms. *International Journal of Multidisciplinary Applied Business and Education Research*, 6(7), 3405–3412. https://doi.org/10.11594/ijmaber.06.07.16

Field, A. (2018). *Discovering statistics using IBM SPSS Statistics* (5th ed.). SAGE Publications.

Genovesi, E., Jakobsson, C., Nugent, L., Hanlon, C., & Hoekstra, R. A. (2022). Stakeholder experiences, attitudes and perspectives on inclusive education for children with developmental disabilities in sub-Saharan Africa: A systematic review of qualitative studies. *Autism*, 26(7), 1603–1620. https://doi.org/10.1177/13623613221096208

Gikandi, J., Kimaru, S., Mwangi, J., & Mugwe, M. (2025). Assessment of usability and sustainability of digital braille assistive devices for learners with visual impairment in Kenya. *African Journal of Empirical Research*, 6(2), 540–550. https://doi.org/10.51867/ajernet.6.2.45

Global Partnership for Education. (2018). *Disability and inclusive education: A stocktake of education sector plans and GPE-funded grants*. Global Partnership for Education.

Grant Lewis, S. (2019). *Education for all: Global monitoring report*. UNESCO.

Human Rights Watch. (2011). *World report 2011: Events of 2010*. Human Rights Watch.

Johnson, K., Gbamanja, G. P. E., & Dumbuya, A. U. (2023). Inclusion and special needs education in Sierra Leone: Developing local expertise by elevating content and context connections. *Journal of Special Education Preparation*, 3(3), 72–77. https://doi.org/10.33043/josep.3.3.72-77

Jones, S. E. (2024). Raising awareness isn't enough: The role of the psychology of education in disability-related justice and inclusion in primary classrooms. *Psychology of Education Review*, 48(1), 6–19. https://doi.org/10.53841/bpsper.2024.48.1.6

Kamara, A. F., Kamara, S. M., Gebeh, M., & Fallah-Turay, R. (2025). Using neurodiversity-affirming intersectional approaches to build more equitable societies and shape public policy in Liberia and Sierra Leone. *Journal of Social Issues*, 81(4). https://doi.org/10.1111/josi.70041

Kassah, A. K. (2008). Begging as a livelihood pathway for persons with disabilities in Ghana. *Disability and Society*, 23(3), 267–279.

Kombe, E., Prior, Y., Ackers, H. L., Day, S., & Donovan-Hall, M. (2026). A qualitative synthesis to explore clinician and user experiences of accessing prosthetic and orthotic services in low- and middle-income countries using the three-delays model as a framework. *Disability and Rehabilitation*. https://doi.org/10.1080/09638288.2025.2516170

LoBiondo-Wood, G., & Haber, J. (2014). *Nursing research: Methods and critical appraisal for evidence-based practice* (8th ed.). Elsevier.

Luetke Lanfer, H., Anderson, E., Bah, F., Krawiec, S., Rossmann, C., & Vines, A. (2025). Experiences of stigma among caregivers of children with disabilities in Freetown. *Scientific Reports*, 15(1). https://doi.org/10.1038/s41598-025-07034-1

Lurvink, A. F., & Pitchford, N. J. (2023). Introduction of an EdTech intervention to support learning of foundational skills in Sierra Leone: Policy, teacher, and community perspectives. *Frontiers in Education*, 8. https://doi.org/10.3389/feduc.2023.1069857

Mantey, E. E. (2014). *Accessibility to inclusive education for children with disabilities: A case of two selected areas in Ghana* (Doctoral dissertation). University of Siegen.

Mugenda, O. M., & Mugenda, A. G. (2003). *Research methods: Quantitative and qualitative approaches*. African Centre for Technology Studies.

Oliver, M. (1990). *The politics of disablement*. Macmillan.

Oliver, M. (1996). *Understanding disability: From theory to practice*. Macmillan.

Osborne, A., Yillah, R. M., Bash-Taqi, A., & Conteh, O. (2025). Navigating exclusion: School responses to the radical inclusion policy for marginalized students in Sierra Leone. *Discover Education*, 4(1). https://doi.org/10.1007/s44217-025-00452-3

Osborne, A., Yillah, R. M., Bash-Taqi, A., & Conteh, O. (2025). A study of vulnerable student populations, exclusion and marginalization in Sierra Leonean secondary schools: A social justice theory analysis. *BMC Psychology*, 13(1). https://doi.org/10.1186/s40359-025-02554-x

Paramita, P. P., Asthana, M. K., Amin, A. S., & Hassim, N. (2024). Inclusive education for students with disabilities: Perspectives from Indonesian and Malaysian higher education. *Jurnal Komunikasi: Malaysian Journal of Communication*, 40(3), 247–261. https://doi.org/10.17576/JKMJC-2024-4003-14

Paseka, A., & Schwab, S. (2020). Parents' attitudes towards inclusive education and their perceptions of inclusive teaching practices and resources. *European Journal of Special Needs Education*, 35(2), 254–272. https://doi.org/10.1080/08856257.2019.1665232

Senkondo, A. (2010). *Barriers to inclusive education in Tanzania*. University of Dar es Salaam.

Sharma, U. (2019). *Inclusive education in the global south: A critical analysis*. Routledge.

Statistics Sierra Leone. (2015). *Population and housing census 2015*. Statistics Sierra Leone.

Statistics Sierra Leone. (2019). *Thematic report on children, adolescents, and young people*. Statistics Sierra Leone.

Terreno, G. (2012). *Attitudes towards inclusive education: A comparative study*. Lambert Academic Publishing.

UNESCO. (1994). *The Salamanca Statement and Framework for Action on Special Needs Education*. UNESCO.

UNESCO. (2000). *The Dakar Framework for Action: Education for All*. UNESCO.

UNESCO. (2005). *Education for All monitoring report 2005: The quality imperative*. UNESCO.

UNESCO. (2015). *Education for All 2000–2015: Achievements and challenges*. UNESCO.

UNICEF. (2005). *Multiple indicator cluster survey*. UNICEF.

UNICEF. (2014). *The state of the world's children 2014*. UNICEF.

UNICEF. (2017). *Inclusive education: Including children with disabilities in quality learning*. UNICEF.

UNICEF. (2019). *Sierra Leone disability act: A review*. UNICEF.

United Nations. (2006). *Convention on the Rights of Persons with Disabilities*. United Nations.

United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development*. United Nations.

World Bank. (2018). *Disability-inclusive education in Africa program*. World Bank.

World Bank. (2019). *Every learner matters: Unpacking the learning crisis for children with disabilities*. World Bank.

World Health Organization. (2011). *World report on disability*. World Health Organization.

World Health Organization. (2018). *Disability and health*. World Health Organization.

World Health Organization. (2020). *Disability and health*. World Health Organization.

World Health Organization & World Bank. (2011). *World report on disability*. World Health Organization.

Yillah, R. M., Sah, R. K., Bash-Taqi, A., & Osborne, A. (2025). Bridging the gap: Exploring students' needs, knowledge, and preferences for delivering comprehensive sexuality education in Sierra Leone. *BMC Public Health*, 25(1). https://doi.org/10.1186/s12889-025-21866-6

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