



**MAIN CHALLENGES FACING PROVISION OF
PRODUCTIVE SPEECH THERAPY TO INDIVIDUALS
WITH AUTISM SPECIFICALLY THOSE WHO HAVE SPEECH
AND LANGUAGE CHALLENGES IN KENYA**

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Abstract:

This narrative review summarizes the evidence on obstacles hindering effective speech-language therapy (SLT) to help autistic individuals with communication needs in Kenya and identifies the practice and policy interventions applicable to special education. Challenges within the reviewed literature fell into five themes: (a) acute workforce shortages and a lack of ASD-specific training to advance speech-language pathologists; (b) delayed diagnosis and discontinuous referral channels that impede access to early intervention; (c) urban concentration of services, excessive out-of-pocket expenses, and insufficient insurance coverage; (d) a lack of access to culturally and linguistically responsive assessment instruments and augmentative and alternative communication (AAC) tools; and (e) stigma, lack of knowledge about autism and The review offers the argument that such gaps can be bridged by concerted efforts in health and education systems such as enhanced pre-service and in-service training, routine developmental screening, scalable caregiver-mediated strategies, school-based SLT supports, and better financing systems of therapy and AAC. Conclusions are made regarding the implications of inclusive education, individualized education plans, and equal participation of autistic learners in schools in Kenya.

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1. Introduction

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder marked by unremitting disabilities in social communication and interaction, as well as limited and repetitive behavioral patterns that develop in early development (Hirota & King, 2023). The spectrum-based diagnostic framework of DSM-5 focuses on variability in presenting symptoms, functional impairment, and support requirements, particularly with respect to language and communication skills. The symptoms have to exist during the early development, have to be clinically significant, and cannot be accounted for by intellectual disability or global developmental delay. The severity levels and the presence or absence of intellectual/language impairment in the DSM-5 spectrum approach highlight variability in the presentation, support needs, and functional impact of individuals (Hirota & King, 2023; First, 2024).

The communication requirements are key to the educational involvement of most autistic learners. Typical examples are delayed or unusual expressive and receptive language, variance in the development of speech sounds and (least consistently) pragmatic language difficulties with joint attention, turn-taking, maintenance of topic and nonliteral meaning. A small part of children with autism are minimally verbal and need AAC in order to communicate. Since these needs directly influence the classroom learning, peer relationships and behaviour, SLT is a related core service in both special education and inclusive schooling.

International evidence relates to a variety of interventions that enhance functional communication in cases when interventions are individually focused, goal-oriented, and provided in an early and intensive manner. These are naturalistic developmental behavioral interventions, parent or caregiver mediated (e.g., responsive interaction, recasting and modeling), and AAC systems (e.g., picture-based and speech-generating support). These services have, however, not been equally available around the world, with low and middle-income countries having increased workforce, funding and implementation challenges.

In Kenya, the diagnosis of autism is on the rise, but access to SLT is limited in terms of trained personnel, concentration of services in urban areas, and the provision is mostly provided by the public sector, and people are hindered by sociocultural stigma, which makes it hard to seek help. These gaps mean a lot to the special education stakeholders as they lead to late school entry services, fewer individualized education plans, and uneven classroom accommodations to facilitate communication. The research question of this review is thus:

- What are the most significant obstacles to successful SLT in autistic persons in Kenya, and what can be done system-wide within the Kenyan health and education systems?

2. Method

The paper used a narrative review method to summarise empirical studies, policy documents, and grey literature summarizing the autistic-related communication needs and SLT provision. This has been summarized by a narrative review approach with a focus on Kenya and similar low-resource environments. PubMed, PsycINFO, Scopus, and Google Scholar were searched (2005-2025) to find articles that contained a combination of autism spectrum disorder, speech-language therapy/pathology, communication intervention, AAC, Kenya, sub-Saharan Africa, and LMIC. Other sources were found by reference chaining and focusing on Kenyan reports. Sources that covered (a) communication features of autism in relation to intervention; (b) evidence-based SLT methods; or (c) barriers and organization of services in Kenya were included. Synthesis of findings was done thematically in order to determine the recurring limitations and opportunities that can be taken up to improve special education practice.

3. Findings

In the literature reviewed, there are five interdependent themes that are seen to be the major limitations that define the delivery of effective speech-language therapy (SLT) to autistic persons in Kenya. Since the local evidence base is currently quite fragmented and mainly small-scale, these results are reported as patterns of convergence between studies, but not as pooled or comparative effect estimates (Kavuti *et al.*, 2025; Obaigwa & Cloete, 2019).

3.1 Labor Scarcity and Insufficient Training of ASD

The first obstacle that has been recorded most frequently is the extreme lack of trained speech-language therapists, especially with autism-specific competencies. The therapist-to-population ratio is still significantly lower than the international standards, and most practitioners are concentrated in large urban areas like Nairobi, so the rural and semi-arid areas are underserved (World Health Organization, 2023; Mbwayo *et al.*, 2025). Despite the growth of training opportunities in recent years, the number of graduates qualified to work is not enough to cover the demand on a population level (Staley *et al.*, 2023). The lack of access to supervised clinical placements and autism-specific continuing professional development is an additional restriction to the clinician's confidence in AAC implementation, pragmatic language intervention, and caregiver coaching (Moorcroft *et al.*, 2019). Caseloads and long waiting lists decrease the intensity and duration of therapy,

compromising the outcomes of young children who are most benefited by the contextually embedded intervention.

3.2 Late Diagnosis and Disjointed Referral Mechanisms

Late diagnosis of autism is a highly documented phenomenon, although in most cases, the caregivers have been noticing developmental issues at an early age. Research has shown that families often see several professionals to be provided with a clear diagnosis, and there is not as much screening capacity, and the referral paths in the system of primary care and early childhood education are unclear (Kamau, 2017; Muthiga *et al.*, 2020). Educational Assessment and Resource Centres (EARCs) frequently do not have specialized assessment instruments and qualified staff, which also postpones access to SLT services (Mukewa, 2024). Such diagnostic delays decrease the chances of early intervention and broaden the possibility of communication problems being established, with adverse consequences for school involvement and social inclusion.

3.3 Service Accessibility Barriers of an Economic and Geographic Nature

Economic and geographic disparities generate significant impact on access to SLT services. In Kenya, SLP therapy is mainly provided in private clinics, non-governmental organizations, and in tertiary hospitals, which is why out-of-pocket expenses are high in assessment, treatment, and travel (Gibson *et al.*, 2020). The rural population can travel long distances to visit a specialist irregularly, which restricts the compliance and follow-up (Autism in Kenya: A Social, Educational and Political Perspective, n.d.). In the context where insurance coverage does not include allied health services, SLT is a continuing cost of financial burden, which is more disfavored among low-income households and extends the socioeconomic disparities.

3.4 Few Resources of AAC, Evaluation Support, and Culturally Responsive Products

The availability of augmentative and alternative communication (AAC) is limited by a lack of clinician education and training; devices and materials are expensive and not generally approved of in schools (Moorcroft *et al.*, 2019). Lots of the most popular assessment instruments and intervention materials are imported and not modified into Kenyan languages and sociocultural settings, which may decrease their relevance and acceptability by caregivers (Obaigwa & Cloete, 2019). Such restrictions are especially impactful to simplistic verbal autistic learners, where AAC might be the major entry point to meaningful involvement in the learning and social activity process.

3.5 Stigma, Poor Awareness and Poor Multidisciplinary Coordination

The lack of sociocultural stigma and false beliefs about autism remains a factor that affects the behaviour of help-seeking, which promotes late diagnosis, stress among caregivers, and social isolation (Kamau, 2017; Ochunge, 2025). Weak coordination between health education and rehabilitation sectors at the systems level leads to fragmentation of the

delivery of the services, as well as inconsistent goal-setting when it comes to the contexts (Mukewa & Wairungu, 2024). Autistic students can be included in regular schools without proper communication support, and clinicians do not have a chance to observe the classroom setting and work with teachers, which decreases ecological validity and functional application of SLT objectives.

3.6 Kenyan Service Landscape Applicable to Special Education

The Kenya service system on autism provides autism-related services in a pluralistic system which incorporates the services of public hospitals, private clinics, non-governmental organisations (NGOs), and religious providers. Nonetheless, to date, the diagnostic and therapeutic capacity is largely urban-based, and the services are concentrated in the cities of Nairobi, Mombasa, Kisumu, and only a small number of county referral hospitals (Kamau, 2017; Mbwayo *et al.*, 2025). Such spatial concentration creates programmed access disparities to the families living in rural and semi-arid counties, where the special services are few or non-existent. Developmental and rehabilitation services in the context of the public health sector are at odds with the priorities of the acute-care services, and speech-language therapy (SLT) is not systematically integrated into the regular child health or early developmental surveillance processes (Mukewa, 2024). Families often face a long queue, insufficient therapy intensity and follow-up of the diagnosis even where tertiary hospitals deliver diagnostic and rehabilitative care (Mbwayo *et al.*, 2025).

In the education sector, inclusive education has contributed to the enrollment of learners with disabilities in mainstream schools, integrated units, and special needs education (SNE) programs due to the policy commitment of Kenya in the education sector (Ministry of Education, 2018; Ministry of Education, 2024). Nevertheless, related services in schools, especially SLT, are still uneven and mostly privatized. The majority of the general school systems are not equipped with speech-language pathologists, and the process of communication support is delegated to the work of classroom teachers who are not necessarily trained in the specifics of communication strategies with autism (Mukewa, 2024; Kiambati *et al.*, 2025). Consequently, affluent families can afford to pay privately to obtain therapy, and low socioeconomic learners must use informal classroom access, which secures disparities in access and results (Kamau, 2017). The process of individualized education planning often focuses on behavioral management and curriculum access, though an explicit functional communication purpose, as well as the systematized use of AAC, are often prioritized (Kiambati *et al.*, 2025).

With these limitations in place, schools become a crucial location upon which early identification and functional intervention can be done so as to make the context in which clinic-based services are impaired or less frequent. The special educators and Early childhood teachers, as well as Educational Assessment and Resource Centers (EARCs), are best placed to assist in the earlier referral by administering short-term developmental and communication screening tools, recording functional effects in the classroom

routines, and directing families to available diagnostic and therapeutic pathways (Mukewa & Wairungu, 2024; Kavuti *et al.*, 2025). Classroom-based communication can be useful and beneficial to participation and learning even in cases where direct SLT services are rare, once the learners are enrolled, and include visual schedules, structured patterns of peer interaction, and low-tech AAC (Gona *et al.*, 2013; Moorcroft *et al.*, 2019). These strategies are best suited in cases where professionals, teachers, and parents have similar objectives and use similar strategies at school and at home (Mukewa & Wairungu, 2024).

3.7 Guidelines to Implementation Equity and Sustainability.

Since most Kenyan families use out-of-pocket models as the primary source of autism-related services, the recommendations that presuppose intensive, clinic-based therapy are not likely to be scalable and fair (Ochunge, 2025; Mbwayo *et al.*, 2025). The equity-oriented service model gives more importance to the interventions that minimize the travel loads, enhance the ability of common communication partners, and depend on low-cost and contextually relevant materials. The use of caregiver coaching and teacher-mediated communication techniques, which are administered in the form of structured group sessions, manuals, and supervised practice, is proven as a feasible alternative to high-frequency clinic visits supported with evidence in Kenya and similar low- and middle-income settings (Gona *et al.*, 2013; Divan *et al.*, 2021).

Sustainability also requires the integration of communication supports into the current education and health routines, instead of a service that is isolated or an add-on service, such as SLT. Even small budget lines on visual aids, simple AAC materials, and regular outreach to schools by specialists can be included in county education plans at a minimum (Ministry of Education, 2024). Clear role definition, such as specifying what teachers do every day, what parents do at home, what clinicians oversee and modify, is a way to reduce fragmentation, better dosage of intervention, and continuity of care without unrealistic costs to increase specialist availability (Mukewa & Wairungu, 2024; Mbwayo *et al.*, 2025).

4. Discussion

The themes synthesized show that the obstacles to effective speech-language therapy of autistic learners in Kenya are not only clinical, but they also reflect the system-wide limitations of producing the workforce, funding the process, structuring the service, and social-cultural acceptance of autism and communication deviation (Kamau, 2017; Mbwayo *et al.*, 2025). In the context of special education, the most direct effect of these systemic barriers will be limited access to effective communication and supports in the classroom, which will frustrate the goals of inclusive education and limit the right of learners to participate, engage, and have meaningful learning opportunities (Ministry of Education, 2018; Kiambati *et al.*, 2025).

The shortage of workforce combined with the urbanization of the distribution of speech-language therapists entails the systematic creation of a dose problem: although families can successfully obtain services, the degree of therapy frequency and duration remains inadequate to lead to long-lasting functional gain (World Health Organization, 2023; Mbwanyo *et al.*, 2025). Consequently, there appears to be a logical complement of conventional clinic-based services, namely, scalable delivery models, such as structured caregiver-mediated interventions, teacher coaching, or telepractice, especially when these interventions are accompanied by supervision frameworks and fidelity support (Divan *et al.*, 2021; Mukewa & Wairungu, 2024).

Late diagnosis of autism is an indicator of missed opportunities in two important entry points, which are child health clinics and early childhood education centers. The outcomes of Kenya regularly demonstrate that caregivers are usually able to recognize the developmental issues at the initial stages, but they face disconnected and lengthy diagnostic journeys (Kamau, 2017; Kavuti *et al.*, 2025). Enhancement of referral is therefore necessary in terms of policy alignment as well as the practical means, such as brief screening checklists, referral decision trees, and locally relevant service directories to allow teachers and primary health workers to refer children earlier and more regularly (Mukewa, 2024; Kondiek & Wairungu, 2024).

Through the issues surrounding augmentative and alternative communication (AAC), there is yet another constraint that exposes the ongoing misunderstanding of the fact that the use of AAC does not hinder the development of spoken language. Conversely, the experience of international and regional studies shows that AAC can aid language development, decrease frustration-related behavior and increase participation, especially with the help of regular modeling and training communication partners (Beukelman & Mirenda, 2012; Moorcroft *et al.*, 2019). In Kenyan inclusive classrooms, low-tech AAC options, including communication boards, picture exchange systems, and visual schedules, are a short-term and low-cost entry point to communication support as mechanisms of device funding and specialist capacity building are still evolving (Gona *et al.*, 2013; Obaigwa & Cloete, 2019).

5. Implications to Special Education Practice

To integrate the provision of speech-language therapy with the aims of inclusive education, special education systems in Kenya need: (a) the identification and referral routines conducted in schools; (b) shared plans of intervention that can transform the clinical communication objectives into classroom-based interventions; (c) teacher training with the goal of communicative supportive instruction; and (d) systematic access to AAC and visual supports as common reasonable accommodations (Ministry of Education, 2018; Mukewa & Wairungu, 2024). The functional outcomes of communication, including requesting help, group work, and initiating peer interaction, should be clearly stated in the Individualized Education Plan (IEP) along with a set of supports needed to

accomplish them, including AAC systems, peer-mediated and structured classroom routines (Kiambati *et al.*, 2025).

6. Recommendations

- Develop competency of SLT training and ASD-specific competencies through the support of supervised placements, mentorship, and continuing professional development regarding AAC and pragmatic intervention.
- Introduce routine developmental screening and autism-related red flag training in maternal and child health settings and early childhood education settings in collaboration with different referral pathways.
- Increase use of SLT in the public sector and schools, and develop county-level service maps to reduce urban-rural differences.
- Adopt scalable caregiver- and teacher-mediated models of intervention (where telepractice is feasible) that are employed to promote therapy dosage and extension to home and school.
- Make reasonable accommodations in the schools in the form of low-tech AAC and visual support, and train communication partners (teachers, caregivers, peers) to model and react to AAC in a consistent manner.
- Increase cross-functional collaboration through the promotion of shared goal-setting, shared case-conferencing, and home-school-clinic communication notebooks/apps.

7. Limitations and Future Directions

The body of literature on autism and speech-language therapy (SLT) in Kenya is limited in size, mostly qualitative, and mostly urban-based, which limits the extrapolation of its results to the national population. Consequently, the experience of the countryside, regional distinctions, and gaps in services at the systems-wide level are underrepresented. In future studies, high priority should be given to national mapping of SLT and augmentative and alternative communication (AAC) services to create accurate data on availability, accessibility, and workforce distribution. Beyond this, rigorous comparisons of caregiver-mediated and school-based AAC intervention models are needed to assess their effectiveness and sustainability in low-resource settings. The AAC service pathways economic modelling would also serve as an informative tool in policy decision-making by determining cost-effective methods of service delivery. Lastly, longitudinal research on the communication, academic, and social outcomes of autistic students in integrated classroom environments is critical for determining long-term effects and for informing evidence-based educational planning.

8. Conclusion

This review illustrates that the impediments to successful speech-language therapy (SLT) with autistic individuals in Kenya are systemic and not limited to clinical reasons, as they are caused by shortages in the workforce, unequal distribution of services, late identification, inadequate access to AAC, and sociocultural stigma. The combination of these interrelated issues poses a direct threat to inclusive education because it limits access to functional communication aids in the classroom, thus limiting participation, learning, and social interaction. Despite the significant progress of Kenya in its policy developments of including the disabled, implementation loopholes still limit access to equal communication services. To overcome these barriers, there has to be a concerted effort at the health and education systems level, such as enhancing early screening and referral practices, strengthening the SLT workforce, and integrating communication supports into routine school practice. Scalable models, including caregiver-mediated and teacher-mediated interventions and low-tech AAC, provide useful, context-specific approaches to service expansion. The need to prioritize functional communication outcomes in the realm of individualised education planning is the key to further promotion of inclusive education and the right of autistic learners to participate in the Kenyan schools meaningfully.

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Conflict of Interest Statement

The authors declare no conflicts of interest.

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Appendix

Glossary

- **AAC** — Augmentative and Alternative Communication Systems or tools (e.g., picture exchange, speech-generating devices) to support or replace spoken language for individuals with complex communication needs.
- **ABA** — Applied Behaviour Analysis A behavioural therapy approach often used in early intensive interventions for ASD.
- **ADOS-2** — Autism Diagnostic Observation Schedule, Second Edition A standardized, semi-structured assessment tool for diagnosing ASD.
- **ASHA** — American Speech-Language-Hearing Association Professional organization guiding speech-language pathology practice (mentioned in global context).
- **ASD** — Autism Spectrum Disorder Neurodevelopmental condition characterized by challenges in social communication, interaction, and restricted/repetitive behaviours.
- **CBR** — Community-Based Rehabilitation Approach to service delivery that empowers communities and families to support individuals with disabilities locally.
- **CST** — Caregiver Skills Training World Health Organization program teaching parents' strategies for communication, behaviour, and daily skills in children with developmental delays/disabilities.
- **DSM-IV** — Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition Previous edition classifying ASD under Pervasive Developmental Disorders with subtypes.
- **DSM-5** — Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition. Current edition (2013) unifies ASD into a single spectrum diagnosis with combined social-communication domain and severity levels.
- **DSM-5-TR** — Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision. Updated version referenced in some citations (2022).
- **EIBI** — Early Intensive Behavioural Intervention High-intensity (often 20–40 hours/week) ABA-based therapy for young children with ASD.
- **HICs** — High-Income Countries Nations with advanced economies and typically better-resourced health/education systems.
- **IEP** — Individualized Education Plan (or Program) Personalized learning plan for students with special needs, including goals and supports.
- **LMICs** — Low- and Middle-Income Countries Classification of nations (including Kenya) with resource constraints in health and education services.
- **M-CHAT-R/F** — Modified Checklist for Autism in Toddlers, Revised with Follow-Up Screening tool used for early identification of ASD risk in young children.

- **NDBIs** – Naturalistic Developmental Behavioural Interventions Family-centred, play-based approaches (e.g., ESDM, PRT) embedding learning in natural routines.
- **NGOs** – Non-Governmental Organizations Non-profit groups providing ASD-related services, especially where government provision is limited.
- **PDD** – Pervasive Developmental Disorders DSM-IV category that included ASD subtypes (now superseded).
- **PDD-NOS** – Pervasive Developmental Disorder-Not Otherwise Specified DSM-IV subtype for atypical or subthreshold ASD presentations.
- **PRT** – Pivotal Response Treatment A specific type of NDBI focusing on motivation and pivotal behaviours.
- **SNE** – Special Needs Education Kenyan educational framework for learners with disabilities, including special units and inclusive programs.
- **SLT / SLT services** – Speech-Language Therapy (or Therapy services) Interventions targeting speech, language, communication, and swallowing difficulties.
- **SLP / SLPs** – Speech-Language Pathologist(s) Professionals qualified to assess and treat communication disorders.
- **SHA** – Social Health Authority Kenyan entity referenced for potential subsidization of therapies (e.g., SLT, ABA).
Other key terms (not abbreviations but frequently used specialized concepts):
- **Echolalia** – Repetition of heard words/phrases (immediate or delayed); common in ASD.
- **Functional communication** – Practical ability to express needs, wants, choices, and feelings.
- **Pragmatics** – Social use of language (e.g., turn-taking, understanding context/non-literal meaning).
- **Prosody** – Suprasegmental features of speech (intonation, stress, rhythm, volume).
- **Recasting** – Technique where an adult expands/rephrases a child's utterance to model improved language.
- **Modelling** – Repeated demonstration of target language in context to encourage imitation/learning.