COLLABORATION-INCLUSION MODEL: STAKEHOLDERS PERCEPTION OF ITS IMPEDIMENTS AS A SOCIO-COMMUNICATION SKILL DEFICIT INTERVENTION STRATEGY IN LEARNERS WITH AUTISM IN NAIROBI COUNTY, KENYA

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Abstract:

Autism Spectrum Disorder is a lifelong neurological disorder that affects individuals' ability to communicate and socialize. It is commonly evident by age three but some cases can take long to be noticed. Parents' lack of awareness and cultural barriers are commonly associated with the delay. Research-based evidence indicates that the best approach to address social communication skill deficits in learners with ASD is by the use of a collaborative multidisciplinary team approach. This is more optimally done in an inclusive setting, both at school and in society. In this approach, speech therapists and other stakeholders collaboratively and consultatively work together as a team. While this has worked perfectly on many occasions, it has not always produced positive results, especially in developing countries like Kenya. It is important to review the key impediments to this model so that families, practitioners and policymakers can work together to ameliorate the situation created by the impediments. The main objective of this research was to consolidate what stakeholders perceive to be barriers to the effective use of the collaborative-inclusion model and what should be done to improve the current situation. Participants were selected purposefully, with an interview schedule and open-ended questionnaires as the main tools of data collection. Main impediments were found to be cultural barriers, poor training, shortage of physical and human resources, attitude and lack of support from administrators. Solutions include in-service training, the creation of awareness, training of more teachers, the inclusion of inclusion strategies in

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teacher training curriculum, and more funding by both county and national governments.

Keywords: Autism Spectrum Disorders, inclusion, collaboration, intervention, socio-communication disorder

1. Introduction

Autism Spectrum Disorder is a developmental neurological disorder that affects a child's socio-communication skills (Hodges, *et al.*, 2020), and individuals as well exhibit the presence of restricted interests and repetitive behaviors (Fuller & Kaiser, 2020). It is a set of heterogenous neurodevelopmental aberrations commonly characterized by children being unable to develop social skills, exhibiting repetitive behaviors and failure of speech and nonverbal communication development (Ibrahimanic *et al.*, 2021). It is not clear what causes Autism Spectrum Disorder, but researchers suspect a complex interaction between genetics and environmental factors (Muthoni & Wairungu, 2023). Among common genetic factors include gene variation, which may be inherited from parental background. This does not automatically make a child develop ASD but increases the possibility. Research conducted in the year (2019) of more than two million people estimated that the hereditability causation level is 80%. Environmental factors, on the other hand, include being exposed to certain infections or medications during pregnancy, very low birth weight, maternal obesity and older parental age when conception took place. While this is the case, no research has been done to confirm this. No race, age or economic class has a higher propensity of developing ASD than the others (Akers, 2022). Autism Spectrum Disorder has been at an unprecedented rate of increase. In the last two decades, it has doubled in developed countries to an average of 1.5% of the population. It is more common in boys than girls in an average ratio of 3-4:1. Not much is known about ASD prevalence in Africa, including Kenya.

In 2013, the Diagnostic and Statistical Manual of Mental Disorders Edition Five (DSM-V) was published. It introduced the concept of *Spectrum*, which combined DSMIV's Separate Pervasive Developmental Disorder Diagnoses (PDD): Autistic Disorder, Aspergers Disorder, Childhood Disintegrative Disorder, and Perversive Developmental Disorder not Otherwise Specified (PDD-NOS) into one. Through it, Rett syndrome was recognized as one discrete disability (Wairungu, 2020). Further, a separate disorder known as Social Pragmatic Communication Disorder (SPCD) was introduced. This represents individuals with socio-communication disorders who exhibit no repetitive behaviors and restricted interest. Finally, severity levels were added to help categorize the level of support needed by individuals with ASD (Hodges *et al.*, 2020). The term *spectrum* means that individuals vary in the severity of symptoms, support needs, skill deficits and strengths (Ochuka & Wairungu, 2023).

Before DSMV was published, social skills and communication skills deficits were considered as two separate entities. This was changed by DSMV. The rationale behind this is that every communication is meant to achieve a social objective. It is inherently social. It requires one to be able to share what they feel or want in an appropriate manner. In neurotypically developing individuals, one may have challenges in language but not with social interaction. Learners with ASD, however, have challenges communicating in social contexts (Denworth, 2018). They have challenges with language pragmatics. They are unable to modify language depending on situations and listeners, vary language for different reasons, and have difficulties following the rules of a specific language. These characteristics significantly affect the way individuals learn and interact with others in school and in society. Autism commonly leads to behavioral and psychological problems that affect learning. Further, due to poor adaptive capabilities, children with Autism become distressed when their environment changes (Mughal *et al.*, 2022), both at home and at school. Early intervention can help ameliorate the implications of ASD characteristics in education and the quality of life of individuals living with the condition.

Early intervention in Autism can improve socio-communication skills, improve self-esteem and improve learning in individuals with Autism Spectrum Disorder. Educating children with ASD amongst typically developing peers is one way of improving socio-communication skills in learners with Autism. Finding ways to meet the learning needs of such children amongst typically developing peers can be challenging (Hayes, 2017). A collaborative multidisciplinary team approach is critical. Speech therapists in this model work with teachers, parents and other support personnel to achieve the same objective. Research evidence indicates that collaboration between speech therapists and parents produces optimal outcomes for children attending speech therapy (Klatte *et al.*, 2020). There is also overwhelming research evidence showing that teachers and therapists working together produce optimal results. Effective collaboration between speech therapists and teachers has also been reported to effectively meet the needs of children with developmental language disorders (Galagher *et al.*, 2019), including ASD.

The Collaboration Inclusive Model is a complex phenomenon that involves a lot of tension and unpredictable and uncertain situations. Further, perceptions about what the model entails vary with stakeholders (Paju *et al.*, 2020). Despite clear indications that the model produces optimal results, evidence indicates that several barriers work against the model. This research aimed to collect and consolidate perceptions from headteachers, teachers, and speech therapists on the barriers that frustrate the model and their perceived solutions to the regrettable frustrating situation.

2. Methodology

This research adopted a mixed method approach with descriptive research as the research design. The study was conducted in the cosmopolitan Nairobi City County in

Kenya. Respondents who were teachers' speech therapists and teachers of learners with ASD were purposively selected. Sample respondents were purposively selected as headteachers, teachers, and speech therapists who work in inclusive schools that serve autism spectrum disorder, among others. The main tools used in data collection were interview schedules and Likert scale questionnaires.

3. Findings and Discussion

As noted earlier, this research aimed at establishing barriers experienced by speech therapists and collaborating partners as they use collaboration inclusive model to intervene against socio-communication skill deficits in learners with Autism. By using questionnaires and face-to-face interviews, data was collected from speech therapists, teachers, and head teachers. The findings and discussion follow below.

3.1 Headteachers and Speech Therapists' Perceptions on the Key Impediments to Collaborative Inclusive Model

Key role of head teachers is to manage both physical and human resources in schools in Kenya. It is also their duty to ensure a conducive learning environment in schools. Speech therapists, on the other hand, provide therapies to help learners overcome obstacles to socio-communication in classrooms. Through face-to-face interviews, headteachers and speech therapists (SLTs) were asked to describe the challenges they encountered in their efforts to promote collaboration and inclusion strategies in their schools. They were also required to suggest the best solutions to the current situation.

Analyses of their responses isolated several obstacles that may be discussed around four (4) themes: *attitude/acceptance*, *knowledge and awareness*, *resources*, and *administrative support*. Both headteachers and SLTs (speech and language therapists) complained of unfavorable attitudes or the lack of acceptance expressed by the involved stakeholders (mostly teachers and parents) toward children with socio-communication difficulties, as illustrated in the following comments given during the interviews. Both speech therapists and headteachers made similar comments.

> *"Parents who are in denial [are a major challenge in collaboration efforts] … Parents refusing to go for assessment in the Kenya Institute of Special Education."* (Headteacher 1)

A speech therapist gave a similar observation:

> *"A major challenge I have encountered when implementing collaboration strategies during therapy sessions is negative attitude by the involved people. Not willing to be part of the process."* (SLT 1)

The headteacher below was in agreement but more specific:

"Some regular education teachers have been uncooperative because they feel that it is not their responsibility to address socio-communication challenges. They believe their work is only to literally teach. "(Headteacher 2)

Similarly, a speech therapist was of a related opinion, as noted below:

"A major challenge I have encountered when implementing collaboration strategies during therapy sessions is negative attitude by the involved people. Not willing to be part of the process." (SLT 1)

Inclusion and equity are considered key pillars for supporting the improvement of schools. Further, the path towards inclusion requires the support of all stakeholders (Simon *et al.*, 2023). The participants' sentiments above are not in line with those supporting inclusion and equity. They indicate that the successful implementation of collaboration and inclusion interventions was, in many cases, hampered by negative attitudes by some stakeholders, including both teachers and parents. A comparable impression is given by both Koliqi and Zabeli (2022) and Mucherah *et al.* (2024), who found that teachers had only moderate attitudes toward mainstream inclusion of learners with special needs. The findings also concur with those of Mathur and Koradia (2018), who established that parents of children with ASD demonstrated negative views towards the quality of education in mainstream classrooms and only neutral (neither positive nor negative attitudes toward the benefits of inclusion and collaboration. There is a need to establish mechanisms to counter unfavorable attitudes toward inclusion and collaboration models among stakeholders in Kenya.

Apart from negative attitude, it was also evident that some stakeholders lacked awareness and knew very little about Autism Spectrum Disorder. Both speech therapists and headteachers complained about it in their responses. One of the head teachers had the following to say

"One challenge I have with my teachers and even myself is little understanding of what Autism is. The majority of teachers, including myself, were trained as regular teachers. It would be a good idea to make each teacher learn at least one unit on special needs before graduation." (Headteacher 2)

Ignorance was mentioned significantly as a barrier to effective intervention against socio-communication skill deficits. It was also evident that the concept of collaboration and inclusion was still strange to significant stakeholders. The following responses from head teachers and speech therapists represent their frustrations:

"Unfortunately, here in Africa, some people are too superstitious. They believe Autism is caused by social and cultural factors such as witchcraft and curses. Working with parents of this nature can be extremely difficult." (Headteacher 1)

This was also observed by the speech therapist below associating ignorance and stigma with their frustration.

"It has been challenging to convince some parents that Disability has nothing to do with unfulfilled cultural beliefs such as unpaid dowery or annoyed ancestors. Further, the society looks down upon families of individuals who have children with disabilities." (SLT 3)

Giving solutions, one head teacher in his response also felt the society lacked sensitization. It needs to be sensitized if collaboration and inclusion have to succeed. He felt that the majority of stakeholders and society in general are ignorant of Autism and Collaboration-Inclusion Model.

"A primary challenge] is [the] lack of information. We need more sensitization in our society. Success is when the society embraces the information and we work together." (Headteacher 4)

This was equally emphasized by the speech therapists in their responses below:

"Issues to do with Autism, collaboration and inclusion are quite strange to both teachers and parents. Some headmasters may try, but they also portray some ignorance. It is important to organize seminars, conferences and in-service training for general education teachers and parents as well." (SLT 1)

Some responses indicated that some of stakeholders prefer training to be done when stakeholders are together. They felt that county and national governments should organize training and conferences for all stakeholders. In other words, the training should take an inclusive and collaborative approach.

"To ensure that all stakeholders appreciate collaboration and inclusion, we need to train all stakeholders under one roof. They need to know how they can work together as a team." (SLT 2)

Similarly, some respondents felt that teachers and parents need to be more empowered to participate in inclusion and collaboration effectively.

"The support needed to overcome the challenges includes creating much awareness and empowering teachers with skills and strategies." (SLT 3)

Consistent with the above findings, various studies have isolated inadequate stakeholder training as a key obstacle to successful collaboration and inclusion interventions for learners with special needs, including those with autism (Arnel *et al.*, 2021; Mohamed, 2022; Noela *et al.*, 2023). The link between training and successful intervention implementation is through multiple paths. For example, effective training equips teachers, SLTs, parents, and other stakeholders with the knowledge and skills needed to support collaboration and inclusion programs (Arnel *et al.*, 2021). Secondly, as highlighted in the present findings, training may help equip stakeholders with positive views toward children with Autism, as well as collaboration and inclusion interventions. Improved attitudes may, in turn, be achieved through different paths, including increased awareness, acceptance, and capacity to manage individuals with special needs (Brown-Oyola, 2016; Schmidt & Vrhovnik, 2015). As Jury *et al.* (2021) opined, teachers with adequate information about ASD are more willing to engage in inclusion programs than those with limited knowledge. These present results not only highlight knowledge and awareness gaps among stakeholders but also the need for effective training programs to equip them with the skills, attitudes, and competence needed to support collaboration and inclusion interventions for learners with ASD.

Another theme that conspicuously came out was inadequate resources. This was both human and physical. Both headteachers and SLTs complained of limited funds, work overload due to staffing shortages, time constraints, and inadequate informational resources. They considered efforts to provide essential resources as vital to improving collaboration and inclusion strategies among stakeholders. The following sentiments illustrate their views about resource-related challenges in collaboration and inclusion interventions for learners with ASD:

"Many teachers are overwhelmed by classroom work. Hence, [they] consider individuals with SNE/SL challenges as [an] extra burden. This prevents them from supporting children with special needs." (Headteacher 2)

"The government should provide resources to the inclusive schools just the way they provide to special needs schools." (SLT 4)

Sadly, while the entire world is moving towards inclusive education, some respondents felt that the government is funding special schools more than inclusive schools. Speech SLT4 above felt that the government funding model should be changed to incline more towards inclusive education. Further, on the same note, one of the head teachers felt that the government should do away with special schools and instead have all learners learn together in inclusive settings. He responded as follows:

"The world is moving towards inclusive settings while our government is giving more resources to special schools. We need to encourage inclusive schools because even the learners with a disability will join an inclusive society after graduation." (Headteacher 3)

Finally, the theme 'administrative support' was highlighted by SLTs only, not headteachers. One speech therapist observed as follows:

"Many teachers complain that they get very little support from head teachers. The head teachers are more interested in good grades, not socio-communication skills." (SLT 1)

It should be pointed out that some teachers were reluctant to support learners with special needs in their classes because they considered them an extra burden, as reported by the speech therapist below:

"The headmaster does not provide extra manpower to help handle severe cases of Autism and those with comorbidities. Teachers need some teaching assistants." (SLT 2)

Another speech therapist also reported that the head teachers were unavailable while multidisciplinary meetings were being held.

"Some of the headteachers are rarely available while needed to participate in multidisciplinary team meetings. They seem to be too busy." (SLT 1)

It was also evident that administrators failed to provide funding and material support to both teachers and Speech therapists. This was reported by two of the speech therapists below.

"When we are working collaboratively with both teachers and parents, we need some items to help achieve our goals. Some Autism cases are so unique that what is in our speech therapist tool kits is not adequate. Some extra items need to be bought. Unfortunately, the head teachers will not always support us." (SLT 3)

"Some headteachers fail to provide appropriate support either willingly or due to inadequate training. This frustrates our efforts in intervening through the collaborative, inclusive model in learners with Autism." (SLT 2)

School administrators play a critical role in the collaboration and inclusion model. They need to have appropriate skills, knowledge and dispositions to support special education (Gibson & Etscheidt, 2023). Their support is a determining factor of teacher retention, motivation and overall well-being of learners with special needs, including

Autism. Precisely, an inclusive collaboration model can never work without support from administrators. They need to facilitate time for meetings, attend I.E.P meetings, provide resources and facilitate a conducive teaching and learning environment.

3.2 The Extent of Challenges in Using Collaboration-Inclusion Model Intervention

Teachers were asked five questions (through a Lickert scale questionnaire) on challenges that frustrated collaboration and inclusion interventions used by the teachers to enhance communication skills in learners with Autism Spectrum Disorder. The questions assessed five areas: time constraints, resistance to implementation, training, meeting individual learner needs, and stereotypes about Autism Spectrum Disorder. Table 4.17 summarizes their responses to the five items. The table shows both raw frequencies (*n*) and corresponding percentages.

Forty-two (42) participants responded to all but the second item in the table (*n* = 41). The majority (83.3%, *n* = 35) agreed or strongly agreed that insufficient training in collaborative and inclusive practices was a significant challenge. Only 9.8% (*n* = 4) felt otherwise, while the other 9.5% (*n* = 4) were undecided on this item. Similarly, the majority (81.0%, *n* = 34) mentioned that there existed negative stereotypes toward ASD that presented challenges to implementing collaboration and inclusion interventions. Only 11.9% (*n* = 5) did not report issues with stereotyping, while 7.1% (*n* = 3) neither agreed nor disagreed.

Table 4.1: Frequencies Showing Challenges of Using
Collaboration and Inclusion Interventions for Learners with ASD

Item	SD	%	D	%	N	%	A	%	SA	%
Time constrains	2	4.7	4	9.5	6	14	19	26.1	11	26
Resistance to change	1	2.3	3	7	5	11	26	62	14	33
Insufficient training	1	2.3	2	4.7	4	9.5	21	50	14	33
Strategies difficult and complex	2	4.7	4	9.52	5	11	17	40	12	28.2
Negative stereotypes	5	11	3	7	3	7	26	62	18	42

The majority (78.0%, *n* = 32) agreed or strongly agreed that resistance to change was a significant challenge when implementing collaborative and inclusive interventions. About 9.8% (*n* = 4) did not consider resistance a significant challenge, while the other 12.2% (*n* = 5) were undecided on this item. Most participants (73.8%, *n* = 31) felt that balancing inclusive strategies to meet the individualized, unique needs of learners was complex and challenging. Only 14.3% (*n* = 6) disagreed, while 11.9% (*n* = 5) were undecided. When asked whether collaborative and inclusive interventions were challenging due to time constraints and scheduling issues, 71.4% (*n* = 30) agreed or strongly agreed. Only 14.3% (*n* = 6) felt that time constraints and scheduling were not a major challenge.

Overall, the majority of teachers in this sample had encountered challenges when implementing collaboration and inclusion strategies to enhance communication for

learners with ASD in their schools. A composite score was then obtained for each participant by summing their ratings on each questionnaire item. Descriptive statistics for the composite scores are in Table 4.18.

Table 4.2: Summary Statistics for Challenges in Using Collaboration and Inclusion

Statistic	Value
Count	40
Mean	20
Median	19.53
Std. deviation	3.457
Skewness	-1.579
Kurtosis	2.761
Minimum	9
Maximum	25

The mean score of 19.53/25, $SD = 3.457$) or 76.0% indicated that, on average, teachers rated the challenges of using collaboration and inclusion interventions for learners with ASD in their schools to be high, based on the scale defined previously. However, the skewness ($S = -1.579$) was high, suggesting there were significantly more scores above the mean than those below it.

These findings further indicate that most teachers in the sample perceived the challenges to be high. Three of the factors in Table 4.17 - time constraints, training, and balancing - are related to resources. The majority of teachers felt that there were inadequate training opportunities to support collaboration and inclusion interventions. This item had the highest proportion (83%) of "disagree" or "strongly" disagree responses. Thus, headteachers, teachers, and SLTs considered inadequate teacher training as a principal barrier to inclusion and collaboration interventions for learners with ASD. Apart from training, issues with time constraints and scheduling were identified as a leading barrier to collaboration and inclusion.

Evidence from headteachers' responses and a comparison with Table 4.17 suggest that problems with time and scheduling were augmented with high workload, which, in turn, resulted from staffing inadequacies. The interplay between inadequate training, staffing shortages (work overload), and time constraints may have a high toll on teachers and hamper the successful implementation of collaboration and inclusion interventions. In that case, they may find it challenging to balance inclusive strategies to meet the individualized unique needs of learners with autism, as was reported by about 74% of teachers (Table 4.17).

The other two items - resistance and stereotypes - may be linked partly to teachers' general perceptions toward inclusion/collaboration and partly due to their perceived preparedness. Evidence from various studies indicates that in many cases, teachers' fears and resistance toward inclusion are primarily because they lack the capacity (knowledge and awareness) and confidence to handle learners with special needs and facilitate collaboration interventions (Mahabeer, 2020; Ozmantar, 2019). Others feel that learners

with special needs may not benefit fully from inclusive settings, given their complex needs (Mahabeer, 2020; Ozmantar, 2019). Such concerns may explain why over 78% of teachers identified stakeholder resistance as a primary obstacle to collaboration and inclusion interventions (Table 4.17).

Over 80% identified stereotypes toward learners with autism as a leading barrier to implementing collaboration and inclusion interventions. Similar findings are reported by Jury *et al.* (2021), who found that in the absence of specific information about ASD, many teachers consciously or unconsciously associated ASD with behavioral problems. Such wrong associations, in turn, generated the most unfavorable views towards learners with ASD. Overall, the above results show that the implementation of collaboration and inclusion strategies for learners with communication disorders in the sampled schools faces multiple challenges, many of which can be attributed to inadequate stakeholder preparedness.

4. Summary Conclusion and Recommendations

Following data collected from Speech therapists, teachers and head teachers, it is evident that a myriad of challenges hinder the effective application of the collaboration inclusion model in addressing socio-communication challenges in learners with Autism Spectrum Disorder. Among the key hindrances include time constraints due to an overwhelming number of students in schools, lack of awareness and ignorance, poor training and general attitude among stakeholders. Among suggestions given on how to ameliorate the situation include in-service training, the creation of awareness and more funding by both county and national governments. School administrators should arrange for more in-service training sessions, avail themselves of I.E.P meetings, and provide a conducive working environment for the inclusion collaborative model to succeed. Universities and teacher training institutions should modify their curriculum to expose all teachers to tenets of inclusion and collaboration as well as Autism Spectrum Disorder, among other disabilities.

5. Recommendations

Following the above conclusions, recommendations are given below for both policymakers and practitioners.

5.1 Practitioners
- It is important that speech therapists play a bigger role in involving parents and head teachers in the inclusive collaboration models. They are more informed about ASD and inclusion and collaboration than any other stakeholders.
- Head teachers need to be more supportive in ensuring cooperation from both parents and teachers in implementing the Collaboration Inclusive Model. They

need to avail themselves more and create time for capacity building. They also need to create a conducive environment for interventions.

5.2 Parents

- Parents need to appreciate that they have a key role similar to those of other stakeholders in ensuring that a collaborative, inclusive model works successfully for their children. They play a pivotal role in knowing their children better.
- Parents need to take their own initiatives to understand Autism Spectrum Disorder better for purposes of improving their positive contribution towards the effective application of the inclusion collaborative model in addressing socio-communication skills deficits.

5.3 Policymakers

Ministry of Education, both at national and county levels, should organize for in-service trainings to help teachers and head teachers understand Autism Spectrum Disorder and the tenets of collaboration inclusion model.

The Ministry of Education should provide more funding in its budget, availing adequate resources to schools for enhancing a collaborative inclusive model for learners with Autism Spectrum Disorder.

The government should ensure that all universities and teacher training institutions offer a compulsory unit on inclusive education to ensure teacher trainees are exposed to both Autism Spectrum Disorder and as well as inclusive, collaborative model.

The entire world is moving towards inclusion. The government should work towards abolishing special schools and replace then with inclusion.

Conflict of Interest Statement
The authors declare no conflicts of interest.

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