



**AN EXAMINATION OF THE INDICATORS OF  
EFFECTIVE COLLABORATION IN TREATMENT  
OF LANGUAGE DISORDERS IN CHILDREN  
WITH AUTISM IN NAIROBI CITY, KENYA**

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**Abstract:**

The purpose of this study was to examine the indicators of effective collaboration in the treatment of language disorders in children with autism in Nairobi City County. This study was guided by Belbin's Theory of Teamwork and Gregory's Theory of Perception. The study adopted the qualitative research design targeting 55 caregivers and 10 speech therapists. Purposive sampling was used to select 20 participants. The research was conducted in Nairobi County and piloting at a medical Hospital. Qualitative data was collected using in-depth interviews and analysed thematically. The study findings showed that the indicators of effective collaborative approaches include achievement of set goals, improved speech, inclusivity of all those involved, improved sharing of information, and improved decision-making. Collaboration ensures that the caregivers are well-informed about the treatments and interventions. The study recommends that the public should be educated on the different disorders such as autism and other spectrum disorders that may cause language disorders to address issues of stigmatization

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and the benefits that come with adopting collaborative approaches in treating language disorders in children with autism.

**Keywords:** indicators of effective collaboration; treatment; language disorders; children with autism

## 1. Introduction

The term language disorder is generally used to describe a heterogeneous group of children whose language behaviour is different from but not superior to the language of their same-age counterparts (Lahey, 1988). When a child has a language disorder, the disorder can involve further language dimensions in different categories. The first category is pragmatic language which is the ability to comprehend the envisioned meaning to enable others to communicate perfectly during a conversation (Adamson, Bakeman, Deckner, & Ronski, 2009).

World Bank and World Health Organization (2011) estimate about 1.1-1.9 million persons have communication disorders with varying severity; among them are children with autism. A child who has Autism Spectrum Disorder (ASD) presents with persistent deficits in Social Communication and restricted repetitive behavior or interests (Edition, 2013). These children will likely experience poor academic attainment, lower education completion, and lower chances of employment later in life largely due to communication challenges. Therefore, they require assistance with their language and speech to help them improve their communication. Although various intervention processes have largely been used by speech therapists to treat these disorders, communication challenges among children with autism have not been sufficiently catered for especially in third-world countries due to limited rehabilitation centers and healthcare providers (WHO & World Bank, 2011).

In the United States, children with ASD benefit from early interventions that focus on increasing the form, frequency, and function of communicative acts (Paul, 2018). The effectiveness of the interventions stems from the use of collaborative methods where caregivers and parents work closely with the speech pathologists to help the children undergo intensive training to shape, prompt, and reinforce speech therapies. In Asia, a country such as Malaysia has in place collaborative intervention which is confronted with numerous challenges, such as uncoordinated service provision by relevant organizations, poor understanding of what family-centered practice is, and late intervention (Chu, Mohd Normal McConnell, Tan, & Joginder Singh, 2020).

In most African countries reports of scarcity of speech and language therapists have been reported. It is estimated that there is about one speech therapist to four million people (Wylie, Mc Allister, Marshal, Wickenden & Davidson, 2012). Bayat (2014) claims that there is a general lack of literature on the needs of disabled African children or the views of Africans towards disabilities. In South Africa, a set of rules within the provision of the speech treatment process was compiled by the SALHA ethics and guidelines

committee in 2007. It incorporates rules such as caregivers' assent, referral, and screening methods for the collaborative intervention process.

East African countries are densely populated with an estimation of about 141.8 million people (WHO & World Bank, 2011); however, services such as speech therapy provisions are confined largely to populations within urban areas within private clinics. The application of a collaborative intervention approach in speech therapy in Kenya being a developing country is likely to face various hindrances. This is because of factors such as ignorance, physical barriers, and insufficient funds (Makinen, Waters, Rauch, Bitran, Gilson & Ram, 2000). In Kenya just like the other developing countries, language disorders in children with autism have attracted insignificant or no attention from the government and other stakeholders regarding establishing support services (Njogu, 2009; Republic of Kenya, 2009). Kenya is a country of several tribes, who have different cultural beliefs and practices. Cultural and spiritual beliefs strongly influence the health-related experiences of people. Similarly, cultural and spiritual beliefs often inform the beliefs and attitudes of the caregivers and community members in a manner that negatively influences caregiving practices and collaboration with medical practitioners of children with Autism (Njogu, 2009).

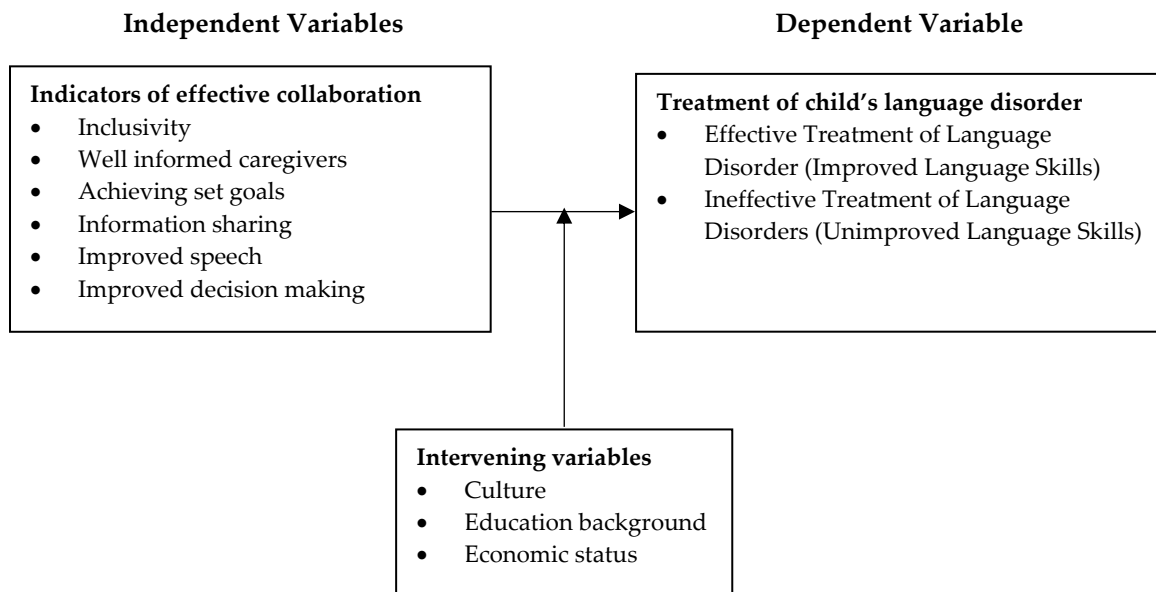
The views expressed by families with a child with a language disorder are important. Such views form a baseline for the beginning of the intervention process (Mandak & Light, 2018). After an evaluation of the child's language disorder, caregivers may struggle to accept a diagnosis of the given disorder, but the information will determine the willingness and participation of the caregivers in the collaborative intervention process (Simpson, 2005). Lack of awareness about language disorder treatment among caregivers in Kenya has been found to be a deterrent to their participation in the treatment process (Bunning, Newton & Hartley, 2014).

Given the above, speech therapists must work together with caregivers and parents for effective intervention. The caregivers of the child are the most critical partners of the intervention team, hence failure to work collaboratively with them frustrates the intervention outcome leaving children with ASD frustrated as learners. Currently, there are limited studies in Kenya focusing on the use of collaborative intervention strategy by speech therapists in Kenya and its effectiveness as an intervention strategy for language disorders among children with ASD.

### **1.1 Purpose of the Study**

The purpose of this research was to examine the indicators of effective collaboration in the treatment of language disorders in children with autism.

**Figure 1: Conceptual Framework**



## 2. Literature Review

This section discusses the theoretical framework and the literature related to the study topic.

### 2.1 Theoretical Framework

This research is based on Belbin's Theory of team roles which was developed in 1981 by Meredith Belbin (Aritzeta, Swailes & Senior, 2007). In this theory, he argues that, in every given team, each member has a given role. In some cases, individuals may have one or more roles depending on the nature of the team. He went ahead and defined nine different roles of individuals in a given team. These roles consist of three people-oriented roles, (coordinator, team worker, and resource investigator); three action-oriented roles (shaper, implementer, and finisher), and three thought-oriented roles (plant, monitor evaluator, and specialist).

The study also used Gregory's (1970) top-down processing theory of perception. He argues that perception is a constructive process where stimulus information from the environment is ambiguous and to interpret it, individuals require higher cognitive information from past experiences or knowledge stored about what individuals perceive. Perception is based on prior knowledge and individuals are always constructing a perception of reality from the environment and stored information. Perception also involves hypothesis testing to make sense of the information presented to the organs and is mainly based on stored information and experiences. In this study, the theory of perceptions helped us understand how different individuals perceive collaborative therapy approaches based mainly on their previous experiences with the same therapy intervention strategy or with others. It helped us understand why perceptions may differ

based on whether or not the experiences with collaborative approaches have been effective in the past or not.

## **2.2 Indicators of Effective Collaboration in the Treatment of Language Disorders in Children with Autism**

In order for speech therapists to provide optimal services, an on-going and trusting therapeutic relationship must be established between the caregiver and the speech therapists (Simmons-Mackie & Damico, 2011). According to the American Academy of Paediatrics (2012), when the collaborative intervention process is followed correctly, the perception of its success is based on whether there is better adherence to the treatment plan, improved clinical decision-making, and better therapy outcomes. In the USA, collaboration is classified under interdisciplinary, multidisciplinary, and trans-disciplinary to ensure that the collaborative process is taking part effectively (Friend and Cook, 2010; Hernandez, 2013). However, Hamilton-Jones and Vail, (2013) identified existing gaps when it comes to the need for the implementation of strategies such as modelling collaboration and training specialists in preparation for the collaborative process in the USA. This study sought to explore collaborative indicators that enhance the intervention process in speech therapy clinics in Nairobi.

In 2011 a study was conducted in the Singapore General Hospital that focused on how to effectively involve caregivers of children with language difficulties and equip them with the necessary skills to help in the intervention of their children (Lim & Simser, 2005). The study findings showed that caregivers had a chance to connect with other caregivers and gain insight by listening to each other's experiences (Morris and Stein, 2005). For the legitimate execution of a treatment program, key procedures of collaboration have to be included within the process. According to Esler et al. (2008), during collaboration certain pointers decide the efficiency of the collaborative intervention process.

In South Africa, Guler, de Vries, Seris, Shabalala and Franz (2017) examined the factors influencing the perceptions of caregivers on the effectiveness of collaborative treatment in the country and found that there were several factors that came into play. These include the types of service providers, support services, parenting practices, cost of treatment, the language used, and the location of the treatment center. The credibility and integrity of the treatment centers or clinics were also found to be a critical factor in how the caregivers perceived the effectiveness of the treatment. Unlike Kenya, South Africa has made strides in collaborative intervention strategy through the provision of document guides for speech therapists collaborating in schools (South African Speech Language and Hearing Association Standards Ethics Committee, 2007).

This study therefore sought to establish indicators of a successful collaboration process among speech therapists and caregivers in Kenya.

### **3. Methodology**

#### **3.1 Research Design and Target Population**

This study adopted a descriptive research design based on a qualitative research methodology. The design is concerned with exploring the perceptions of caregivers, and speech therapists on the effectiveness of collaborative therapies.

Creswell (2017) argues that qualitative research design is concerned with the exploration of phenomena and is highly effective in helping researchers understand connections between problems under study and the surrounding circumstances. The study's target population was speech therapists and caregivers. The speech therapists targeted were drawn from selected private clinics that offer speech therapy in Nairobi County. The caregivers targeted were drawn from the selected clinical archival records that show the nature of the language disorder of their child and therapy attendance in the given clinic.

#### **3.2 Sampling Techniques and Sample Size**

The study adopted a purposive sampling technique to select a working sample. Purposive sampling was appropriate for this study because it allows the researcher to identify cases rich in information related to the phenomenon of interest. The clinics sampled were private clinics as they are the ones currently offering speech therapy in Nairobi County. The speech therapists were sampled from the 12 selected private clinics. The caregivers sampled were regular clients of the speech therapy clinics under study. In this study, the researcher sampled a total of 20 respondents. The sample consisted of 6 speech therapists and 14 caregivers.

#### **3.3 Research Instruments and Data Collection**

The researcher interviewed the speech therapists and selected caregivers to elicit probing and verbal responses. The interview guides contained semi-structured questions. The Interview guide was developed in accordance with the research objectives. The researcher conducted verbal group interviews in order to gather more information on the study objectives. Individual interviews with the sampled caregivers and speech therapists were also conducted in order to address information that may have been left out in the group interviews. Both individualized and concurrent interviews were conducted for a minimum of thirty minutes. The interviews were conducted face-to-face in the given clinics. The researcher also studied the clinical archival records to gather important therapist-patient information mostly the communication between them and the level of collaboration between them.

#### **3.4 Pilot Study**

The pilot study was done in Kileleshwa Medical Hospital which hosts a speech therapy clinic. The clinic offers speech therapy services to children with ASD and their respective caregivers and was not part of the sample selected for the study. In this research, the

project supervisors from the institution and peers helped the researcher in determining the face validity of the data collection instrument. Furthermore, the pilot study findings further helped the researcher to modify the framing of the interview guide questions. After piloting, the researcher used the test-retest method in order to ensure the instruments were sustainable over time. The researcher gave the same instruments to the same respondents twice and then afterward correlated the two results where any ambiguities noted were corrected before the data collection. In this case, the researcher looked at the manner in which interview questions were answered to see if the general arguments were similar. In areas where consistency was not achieved, the researcher modified the questions to ensure they generated similar understanding from all the respondents.

### **3.5 Data Analysis**

This refers to the process of analysing patterns of observation from the data collected (Savenye and Robinson, 2004). After collecting the data, the researcher organised, coded, classified, and summarized the data according to the research questions and objectives with the aid of N-Vivo software. The qualitative data were first transcribed for efficient interpretation and presentation. This was to enable efficient organisation and interpretation of the qualitative data obtained from interviewing the respondents. The data was coded thematically after establishing patterns and then presented thematically using verbatim and paraphrasing.

## **4. Results and Discussions**

### **4.1 Demographic Information**

Table 1 shows the general and demographic information of caregivers and speech therapists.

As Table 1 shows, the majority of the respondents were female. Among the speech therapists, 4(66.7%) were female and the majority of the caregivers (64.3%) were also females. The males were the minority with only 2(33.3%) being male among the speech therapists and 5(35.7%) among the caregivers. In regards to age, the majority of the caregivers were below 42 years of age where most 7(50%) were between 34-41 years while those between 26-33 were 21.4% those who were below 25 years were 14.3 and those who were between 42-49 were also 14.3%. On the other hand, all of the speech therapists were above 25 years of age. In regards to the age of children taken for speech therapy, the caregivers indicated that the majority, 7(50%) were between 2-4 years of age whereas those between 5-7 were 21.4% > those above 7 years were 28.6%. The caregivers and the speech therapists were also asked to indicate their highest level of education. The majority of the speech therapists 66.7% indicated that they had university-level education whereas the remaining 2 (33.3%) indicated that they had college-level education. The caregivers, on the other hand, had 21.4% university education, 35.7% college-level education, 28.6% secondary-level, and 14.3% had a primary level qualification. The

majority 66.7% indicated that the number of children attending speech therapy was increasing while 16.7% indicated that the number was declining and stable year after year respectively.

**Table 1:** General and demographic information of caregivers and speech therapists

	N = 20	Caregivers (n = 14)		Speech Therapists (n = 6)	
		F	%	F	%
Gender	Male	5	35.7	2	33.3
	Female	9	64.3	4	66.7
Age	18-25	2	14.3	0	0
	26-33	3	21.4	2	33.3
	34-41	7	50	1	16.7
	42-49	2	14.3	2	33.3
	>50	0	0	1	16.7
Age of Child	2-4	7	50	0	0
	5-7	3	21.4	0	0
	>7	4	28.6	0	0
Occupation	Psychologist	0	0	0	0
	Speech and language therapist	0	0	3	50
	Special education teacher	0	0	1	16.7
	Inclusive teacher	0	0	2	33.3
Education Attained	Primary	2	14.3	0	0
	Secondary	4	28.6	0	0
	College	5	35.7	2	33.3
	University	3	21.4	4	66.7
Number of Children Served	Increasing	0	0	4	66.7
	Decreasing	0	0	1	16.7
	Stable	0	0	1	16.7

#### 4.2 Indicators of Effective Collaboration in the Treatment of Language Disorders

To achieve this objective of the study, the respondents were asked a range of questions, and their responses are summarised in Figure 2 below.

Figure 2 below provides the summary of the main sub-themes that emerged in regard to the indicators of effective collaboration in the treatment and intervention of speech and language therapy among children with autism. The first theme was the achievement of set goals.



**Figure 2:** Indicators of Effective Collaboration



A respondent argued that,

*“When I started going for therapy for my son, some of the first activities we engaged in with the therapies was setting the goals based on a timeline. She was so nice and after providing us with as much information and clarification as we wanted, she then engaged us in setting some basic goals for ourselves as the parents/caregivers and then for her and then for my son. I felt like a part of the whole process and I still do.”* (Respondent 18)

Another respondent argued,

*“I love how we work closely with the therapist. She involves us in each and every step of the therapy and makes any decisions, especially about treatments and interventions us. She ensures always that we understand and are comfortable with the decisions she makes.”* (Respondent 9)

Evidently, the parents seem to place a lot of value in being involved in setting the goals and milestones for their children. By keenly working with the parents, the therapists can keep them informed and committed to the goals that are set for different stages of the therapy. As McCain, Mustard, and Shanker (2007) argue, successful early interventions that constitute a multi-disciplinary team, to enhance caregivers’ inclusion in the collaborative intervention process are perceived to be essential and effective only if there is participation in decision-making by both parties, information sharing, inclusion in the treatment evaluation and implementation of the treatment program,

The respondents also claimed that having all the necessary information so that the therapist does not make decisions without informing them is an important aspect of collaborative treatment and intervention for children with speech and language difficulties. One of the speech therapists argued,

*“One of the things I look for when choosing a speech therapist is the support services that I get and the rapport that they will have with my child. That said, I also value having a good rapport with the therapist, I need to know that I am part of the process. I do not want to be on the sidelines. I want to be able to help out and play a role in helping my child get the help he needs.” (Respondent 11)*

According to one of the therapists,

*“Sharing information and making sure that the parents and caregivers are informed of all that I do including each of the steps that we will be taking is an inherent part of my collaborative intervention and treatment. It makes it easier to do follow-ups, seek clarification, and evaluate the therapies to see if they are effective.” (Respondent 3)*

Another caregiver argued,

*“Cost is an important factor when choosing a speech therapist for my child, but I will overlook the cost if I find one who will work closely with me. I do not want someone who will dictate things to me and my child. I want to be involved and one of the key ways my current therapist does this is by giving me all the information I need and keeping me updated even when I do not attend the sessions.” (Respondent 9)*

These findings show that there are various factors that determine the effectiveness of collaboration approaches in the interventions and treatment of language disorders in children with autism. According to the interview findings, the caregivers cite things such as the amount of, money that is needed to implement collaborative approaches while others are concerned with the need for information to aid them in making decisions regarding the treatment of language disorder (Bradbury et al., 2015). In general, these findings suggest that the effectiveness of collaborative approaches is determined by issues such as the costs, information sharing, and the support services the parent or caregiver gets when implementing collaborative approaches to treating language disorders.

These findings are also similar to those by American Academy of Paediatrics (2012), which argues that when the collaborative intervention process is followed correctly, the perception of its success is based on whether there is better adherence to the treatment plan, improved clinical decision making, and better therapy outcomes. The relationship between doctor and patients proves to greatly affect the treatment process and this is strongly associated with the patient and doctor adhering to appointments (Bultman & Svastard, 2002).

The other theme that emerged of improved decision-making and inclusivity in the intervention process. One of the main aspects of collaboration is working closely together. Therefore, where the caregivers and the therapists commit themselves to the process, then it is easy for information to be shared and the parents to be involved in the decision-

making, evaluation, planning, and implementation of the speech therapies. The therapists argued,

*“It is easy to conduct follow-ups and to implement strategies and interventions if all the parties, especially the parents are adequately involved in the process.”*

Another one argued,

*“I ensure that all the parents or caregivers I deal with have all the background information they need about their child’s condition. It makes for faster and efficient decision making and implementation.”*

In general, the indicators of effective collaboration according to the responses of both the caregivers and the speech therapists are the effective setting of goals arising from clear and adequate sharing of information, the inclusivity in the setting of goals, and the allocation of duties and responsibilities and reporting back to each other to measure the progress and see where the child is based on the goals set.

These findings are in support of Esler et al. (2008) who states that during collaboration certain pointers decide the efficiency of the collaborative intervention process. When the caregivers and speech therapists choose to collaborate, they ought to begin by recognizing the problem, dissecting it, coming up with a plan, assessing the plan, and finally executing the plan. (Woolf et al., 2005).

## **5. Conclusions**

The study concludes that the indicators of an effective collaborative intervention strategy include achieving set goals, improved speech, inclusivity of all those involved, improved sharing of information, and improved decision-making.

## **6. Recommendations**

- 1) The public should be educated on the different disorders such as autism and other spectrum disorders that may cause language disorders to address issues of stigmatization and the benefits that come with adopting collaborative approaches in treating language disorders in children with autism.
- 2) Policies should be put in place to educate parents/caregivers on the benefits of adopting collaborative approaches to speech and language therapies for children with language disorder
- 3) The study recommends that this topic can be further pursued by investigating the effectiveness of collaborative approaches for treating language disorders in children with autism by conducting an experiment study to overcome the limitations of the current qualitative paper.

### **Conflict of Interest Statement**

The authors declare no conflicts of interest.

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