

# Perceptions of Parents, Speech Language Pathologists on Telepractice Effectiveness in Communication Difficulties among Children at Kenya Institute of Special Education

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## ABSTRACT

Tele practice has become a vital method of offering speech and language therapy, this method is especially more popular in low-income households where there are challenges such as limited financial resources, distance barriers, which makes it difficult to access in person therapy sessions. This study investigated the level at which different stakeholders such as parents; caregivers and speech and language pathologists rated the use of tele practice as an alternative in helping children with communication difficulties at the Kenya institute of Special Education (KISE). This study was anchored on Giddens's theory of Modernity. The study made use of the mixed methods approach which amalgamated different numbers from records of attendance, satisfaction ratings and results of therapy given with the views collected by the use of interviews. The study findings noted that majority of the participants had a positive view of tele practice, highlighting that it offers convenience, is cheaper as compared to in person sessions and is accessible from anywhere. Some of the disadvantages were noted which included unstable network connectivity in some areas, the attention span of children is limited during the online sessions and the lack of the personal touch that can only be afforded by physical interaction during therapy. Those involved noted that it was satisfactory with a 40% mark, 20% were not satisfied, while 13% remained neutral, and 27% were very satisfied. The regression analysis done pointed out that articulation improvement, quality as highlighted by participants and the need to recommend teletherapy were the greatest indicators of tele practice success ( $F=2.871$ ,  $P=0.042$ ). The study concluded that Tele practice is practical and a very effective method of helping address communication difficulties but the challenges highlighted should be addressed.

**Keywords:** Tele practice, teletherapy, communication difficulties, articulation disorder, speech therapy

## INTRODUCTION

Tele practice which can be defined as the way in which speech and language therapy sessions and services can be provided remotely by the use of digital communication technologies, has become very popular as a method which leads to improved access and continuation of care for people with communication difficulties (Gragon-Johnson et al.,2011; Sutherland et al.,2019).

A point to note, is that even though the method has gained prominence world over, it is not fully integrated into the systems of service delivery of therapy in Kenya. Study done in high income countries have pointed out that teletherapy is an effective method in improving issues such as articulation, language comprehension and expressive communication skills (Boisvert et al.,2010), when you compare this to local contexts here in Africa, where digital accessibility continue to be a barrier, you find that there is limited evidences that exists in support of acceptance, practicability, and the perceived quality.

It is therefore very important to examine the perceptions of stakeholders having in mind the idea that for tele practice to be successful it will depend largely on caregiver involvement, digital acumen, reliable technological connectivity. This factors additional affect the adherence to therapy and its outcomes.

These concerns highlighted greatly influence the direction of this present study which set out to determine the perceptions of parents, caregivers and speech language pathologists in line with the effectiveness of tele practice helping in addressing the different communication difficulties in the children who go to the Kenya Institute of Special Education (KISE). The findings of this present study will contribute to the growing body of scholarship on context responsive digital innovation in the area of special needs education and also it will inform policy directions for inclusive, technology enabled service delivery in Kenya.

### Conceptual Framework

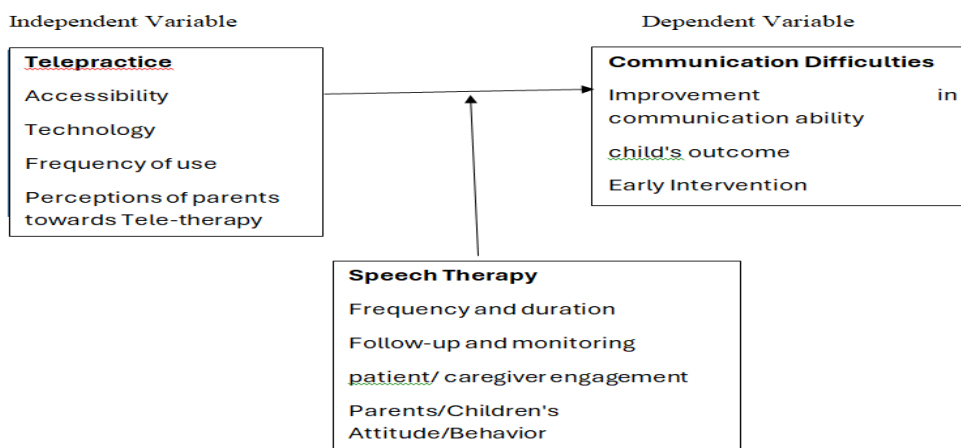


Figure 1.1 Conceptual Framework on re-habilitation of communication difficulties using telepractice for improved service.

Tele-therapy is the independent variable, and communication difficulties are the dependent variable. The conceptual framework is based on the fact that persons with speech and language difficulties receive early intervention (speech therapy) followed by educational intervention from the multidisciplinary team. The intervention will result in service delivery through Tele-therapy in their life. Tele practice will result in early intervention even in places where the specialists are not locally available. Alternatively, parents/caregivers need to be involved in the therapy session to enhance their knowledge of handling communication difficulties.

### Methods

The present study made use of the quasi-Experimental research design, a pre-test and post-test design was used together with the control group. The researcher adopted purposive sampling techniques to select participants, including children with articulation difficulties, parents/caregivers with smartphones and internet access, and SLPs. The sampled group were assessed and the experimental group was subjected to teletherapy.

The sample comprised 40 individuals with articulation difficulties, that is, 20 in the experimental group and 20 in the control group, 20 parents, and 2 SLPs. Among the 52 targeted children with articulation difficulties, 9 (17.3%) did not have access to a smartphone or reliable internet connection, 3 (5.8%) had no digital literacy hence were not included in the study as these factors were taken into consideration when analyzing the effectiveness and accessibility of teletherapy services.

Google meet was used to conduct the sessions. To help also understand and measure changes in articulation before and after the intervention, the researcher administered pre and posttest using ‘The Goldmann Fristoe Test of Articulation’. Data was collected through an open and closed questionnaire; Structured questionnaire was used to help gather information on different aspects such as satisfaction level, perceived progress and the willingness to recommend tele practice to others. Additional, to enable the capture of participants experiences in more details, open ended interview questions were used.

Data was recorded for analysis. The study used document analysis to get statistical data on children with communication difficulties. The researcher accessed the institution's records and picked details on demographics, therapy goals, session frequency, and their location. The study in focus mainly looked at the data that was collected that is the quantitative data and qualitative data.

The information gathered via questionnaire, test tool, and data analysis was recorded and arranged for thematic and narrative analysis. Finding, analyzing, and documenting patterns in data sets that align with the study's theoretical framework addressed the specific research objective. Qualitative data was collected using data analysis and analysed using SPSS and Excel computer-based analysis

Finally, to synthesize and analyze the data, descriptive statistics, correlation analysis and ANOVA were used to test if teletherapy had a noticeable and significant effect on children’s communication difficulties.

As standard practice for any research in Kenya, the researcher first obtained clearance from the university. Then, apply for permission to perform the research from the National Commission for Science, Technology, and Innovation (NACOSTI). The researcher had introductory letters verifying authorization to go out and gather data, including the Department of Special Needs Education and the Graduate School. The NACOSTI, KU Ethics Committee and Kenya Institute of Special Education also issued clearance.

## DISCUSSION

After analysis of the findings, it was found that they offer a nuanced understanding of the concept of tele practice as is usually experienced by different stakeholders such as parents, caregivers and the speech and language pathologists at the Kenya Institute of Special Education (KISE). When the results were analyzed together, it was found that tele practice is seen as a practical and important method that can be used for delivering speech and language therapy to the children that have communication difficulties at different stages.

It was found to be favorable because it is easily accessible, it reduces the demand of logistics such as travelling and is very flexible for the different families as individuals can have their sessions at a time of their convenience. It should be noted that the study brings out the aspect that tele practice is not just favorable because it is digital, its dependability is based on the fact it has to have stable internet connectivity, the caregiver has to be willing to use it and the level at which some households are willing to adapt a structured intervention.

This idea is in concurrent with other studies in the same field which has brought evidence that virtual speech language services are effective when conditions are favorable and the family context is put into consideration (Wales et al., 2017; Shankar, 2022). This is very important because for therapy to be effective and to work, it has to be used in a consistent way especially for children that may need repeated practice and every day or regular emphasis on what was learned.

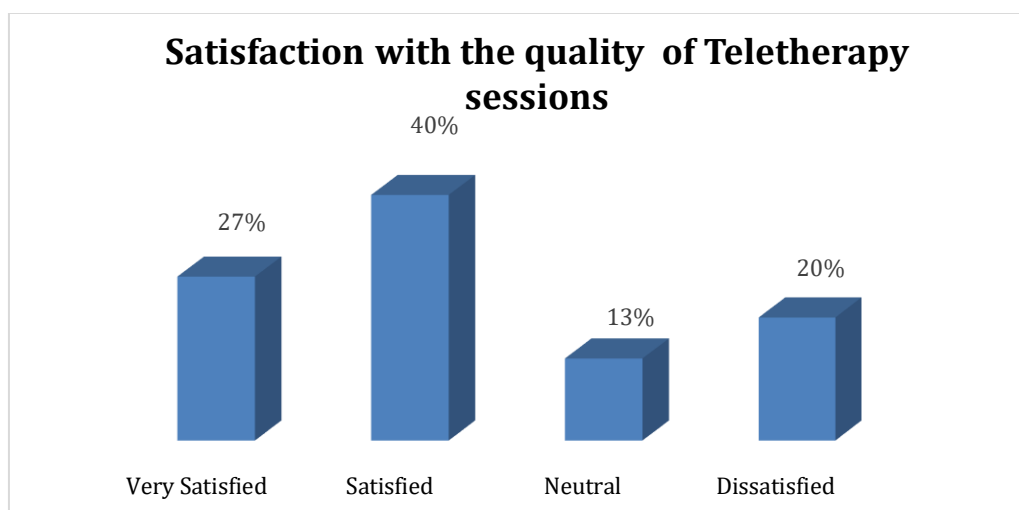


Figure 1.2: Satisfaction with the quality of teletherapy sessions

Figure 1.2 shows the level of parental satisfaction which was measured using factors such as access to teletherapy, the level of convenience, how comfortable the environment among others.

The main reasons why parents found teletherapy satisfying at high level was that the services were efficient, were comfortable to use even at home and it was cost effective since the issue of transport fee was done away with because it is online. The parents who were not satisfied at all said that their children had short concentration span and were easily distracted while using a phone.

Another strength of tele practice was based on the home setting. Most caregivers and Speech language pathologists noted that children were more at home and relaxed when the different sessions were offered at the familiarity of their home environments. One parent stated ‘my child is calmer and more focused and eager to see you on the other side of the screen’.

The familiarity of the home environment made sure that communication flowed naturally, participation was organic and the children were more engaged. This finding is consistent with family centered scholarship which has averred that intervention is more effective when it is done in line with normal routines rather than as separate from normal daily life. (McCarthy et al., 2019). This lends more weight to the fact that tele practice can be important because children learn and practice skills that they are most likely to use in their day-to-day life (Douglas et al, 2021). In line with this thought, home is not just a place where therapy happens but it becomes a part of that same therapy and the intervention, this therefore becomes a key advantage of tele practice especially in children who encounter communication difficult because of the environment which they are in.

Tele practice was noted to be popular because it gave a lot of visibility about the therapy process to the caregivers. Parents were not just inactive escorts to the children but actively took part in the process such as helping in attention, prompting the children, reinforcing the different interventions. This is in line with the view in family coaching orientation of tele practice as a method of therapy where caregivers such as parents become actively involved and not passive bystander (Douglas et al., 2011; McCarthy et al.,2019).

When the caregivers participate actively in the process, they now get more confidence in the process as they can observe the whole techniques of the therapists and support the children in their own way. These techniques, therefore, help improve the continuation of the therapy sessions between the therapy and the daily activities at home. A point to note is that these advantages become more useful when the caregivers are given good and enough lessons about the process which goes beyond them just being sit in persons in the sessions without structured support. The quality of support, as noted by Difabio matters, more than the physical appearance of the different caregivers (DiFabio et al.,2023).

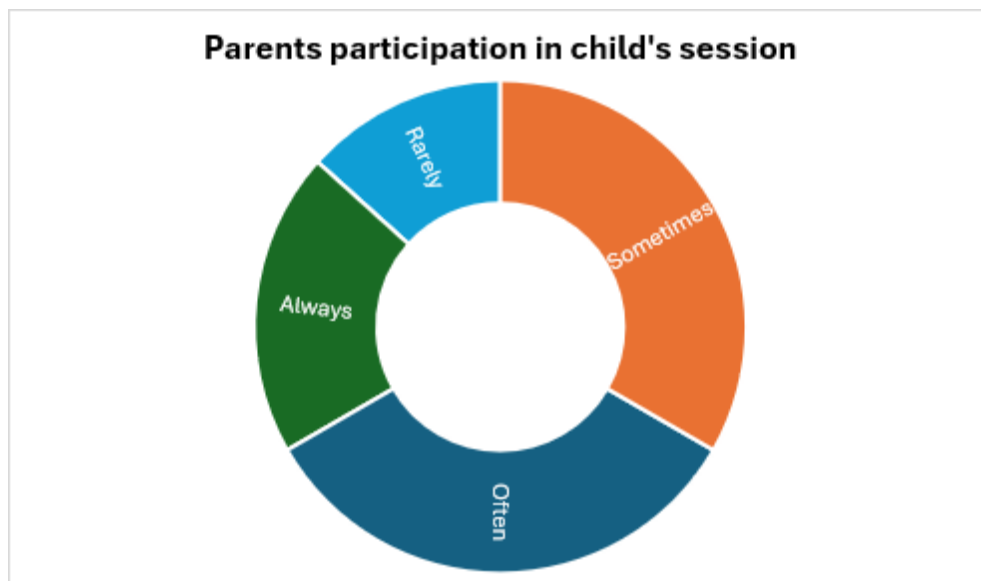


Figure 1.3; Parents participation

To gauge parent involvement, the researcher had to evaluate the level of attendance of the different sessions, this would give a clear view of the evaluation. When this was done it was discovered that among the 20 participants in the experimental group, 30% attended sometimes, 35% participated often, 20% always attended the sessions and the other 15% were noted to rarely participate. The findings suggest that the majority of parents were moderately to highly involved in their children’s tele practice session.

However, it’s important to note that after qualitative follow up, it was discovered that they would send their house helps, relatives and neighbors to attend sometimes. This would bring the validity of their participation in question because of participating in an indirect way through house helps, neighbors, and relatives. This further complicated the situation because it is not just a matter of attendance of the therapy session but also parental commitment and consistency.

Additionally, the study also noted that the different benefits of tele practice that have been highlighted above can be unstable and uneven. In the absence of favorable conditions noted above, tele practice becomes unsuitable and frustrating for both the caregivers and the clinicians. In the Kenyan context where access to technology and internet is quite uneven, these points are important since they will determine the people who will benefit from therapy and those who will not benefit for tele practice (Kemp, 2024).

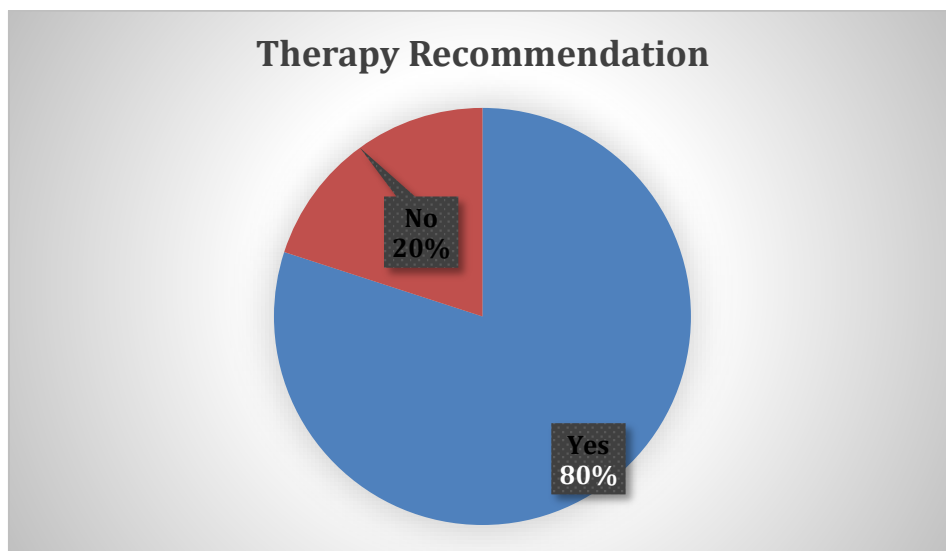


Figure 1.4: Therapy recommendation

Figure 1.4 shows that 80% of the respondents had a high chance of recommending the teletherapy sessions to friends and family. This was because they found that Teletherapy sessions were cost effective, saved time and would offer flexibility at all times. On the other hand, 20% of parents said that they would not recommend the service to other people who had children with communication difficulties because of the interpersonal correlation, poor network connectivity and unstable poor supply. That 80% of respondents’ recommendation of the service shows that parents are satisfied and find the services convenient pointing to the aforementioned benefits as the reason why they are endeared to teletherapy.

Even though the challenges noted above were highlighted, caregivers in this present study still went ahead and were willing to recommend tele practice to other people. This is an important point to note since, it goes as far as giving evidence that families did not just abandon tele practice because of the technical hitches but by the benefits that they got. Studies that had been done early are also in support of the same pattern, families see tele practice as an effective method because of its flexibility, accessible and family friendly even though they may still prefer personal and physical sessions for certain types of interventions (Grogan-Johnson et al., 2010; DiFabio et al., 2023.). This is a very vital recommendation in the context of Kenya since there is limited access and uneven distribution of Speech language services. Tele practice is not just a service delivery option but also a practical intervention to the issue of accessibility to the service. Its value is imbedded in the fact that it makes therapy accessible for people that may find it difficult to attend regular sessions.

The small percentage of the caregivers who did not recommend tele practice also raised key supporting issues. For example, they raised the concern that tele practice may not have the personal touch, and the feeling that online sessions cannot replace face to face therapy sessions. The concerns raised are particularly well grounded because literature indicates that tele practice can only be effective when there is language practice, parent coaching and a structured model but it may not be very well effective and suited in situations where there is a need of physical prompting, behavioral management and need for long attention span (Law et al., 2021; DiFabio et al.,2023.) for example , in certain speech therapy sessions, certain issues may require the therapist to observe closely and physically the articulatory placement in order to provide most accurate interventions, this may not be possible online. However, this does not mean that tele practice is not suitable for speech language intervention, it only brings out the fact that not every problem can be compatible with an online session. Therefore, it is important, in search cases that we combine tele practice with in person sessions in order to offer a more balanced approach.

On the other hand, therapists found that tele practice is an efficient, scalable and a useful tool to use during intervention of communication difficulties. Speech language pathologists saw it as an extension of services to people that may not, for one reason or another such as distance, transport or time, get the therapy session. Additionally, tele practice helps the therapists to interact with the caregivers more directly and to give them real time coaching to help in improving communication difficulties in the children.

This is in line with previous evidence which has shown that tele practice strengthens the involvement of family and therefore it becomes more effective as the interventions are taken beyond the classroom or the sessions to daily activities (Shankar et al.,2022; Douglas et al.,2021). This may also suggest that therapists may use this method to handle shortages of therapists in local contexts where there are limited access and personnel, as stated by Nthiga and Nyamasyio (2023), whereby most public hospitals do not offer SLT services while their counterparts in private practice offer them at a higher rate.

The above qualitative results are reinforced by quantitative results. Significant ANOVA results in table 1.1 below showed that tele practice had a significant positive impact on the outcomes of communication difficult on children. Improvement in articulation was one of the strongest indicators of the success of tele practice. It was followed closely by the satisfaction by clients from the service quality that they received and lastly by the fact that the caregivers were willing to recommend tele practice to others. This is in agreement with earlier scholarship which indicated that telehealth delivered speech language intervention can produce outcomes and successes that are almost similar in person therapy sessions especially for speech sound and language (Grogan-Johnson et al.,2010; Wales et al.,2017). More importantly are the regression findings as it goes beyond the assumption that tele practice is only acceptable to family but that it can be used as a clinical intervention especially when it is well structured and delivered in a consistent manner.

Model	Sum of Squares	df	Mean Square	F	Sig. (p-value)
Regression	3.467	5	0.693	2.871	0.042
Residual	3.985	15	0.266		

Table 1.1 Anova table

Predictor Variable	Coefficient (B)	Std. Error	t-Statistic	p-Value
Intercept	0.398	0.580	0.685	0.504
Articulation improvement (Yes=1, No=0)	0.762	0.223	3.416	<b>0.004</b>
Therapist/child interaction (ordinal coded)	0.287	0.138	2.085	<b>0.053</b>
Satisfaction with quality (ordinal coded)	0.544	0.155	3.514	<b>0.003</b>

<b>Parents' participation</b> (ordinal coded)	0.239	0.165	1.452	0.167
<b>Teletherapy recommendation (Yes=1, No=0)</b>	0.614	0.248	2.478	<b>0.026</b>

The issue of therapist child interaction should be looked at more keenly. That even though the issue did not get to significant statistical convention, it highlights an important issue during therapy, that rapport may be present in tele practice but it is usually taken different in face-to-face interactions. Evidence suggests that tele practice can change how clinicians may view and read the children’s responses and build engagement to a certain level (Law et al., 2021; Shankar et al.,2022).

Some of the components of therapy are easier to handle in person where we can afford to see body language, proximity and immediate interaction. Unfortunately, in tele practice, these features may be done away with however, this is not to say that relationship building is impossible in tele practice only that clinicians must put in place more nuanced strategies to build these relationships but for now, these studies finding suggest that relationship building is an area that need improvement in tele practice.

The implications of these findings are both clinical and policy related. In terms of clinical view, tele practice can be seen as a boast or a compliment to the in-person therapy sessions as opposed to viewing it more narrowly as a replacement. This is because tele practice is more effective and relevant when there is specific, caregiver support is strong and the learning environment of the child is stable and consistent. This tool is particularly more effective in articulation and language goals especially when the family is trained to reinforce and promote the skills learned between the different sessions. But for children who need more intensive support, then a hybrid method of therapy will be more useful to them rather than just one method.

Additionally, the study findings are important to the professional development of SLPS. This is because it has highlighted the fact that they need intense training in both digital platforms and support together with adapting to the now popular virtual therapy sessions. This may involve redesigning tasks to ensure that they fit into digital spaces, knowing how to manage attention effectively remotely and the use of online tools more effectively.

In conclusion, it is important to note that most of those involved noted that it was satisfactory with 40% mark 20% were not satisfied while 13% remained neutral,27% were very satisfied. This study findings have highlighted the fact that tele practice is an important and modern tool that can help support high quality speech and language therapy when it is implemented strategically. The case study at KISE has highlighted the fact that among other things and as a matter or priority, families value access, convenience and continuity of care while on the other hand therapists value efficiency, progress and expanded reach. Additionally, all the two groups highlighted the challenges that are afforded by technology, the different varying contexts of the different homes and the need for support of the children with communication difficulties either through training of the caregivers or professional development of the therapists.

## CONCLUSION

This study has given evidence that tele practice is an effective and more accessible method that can help in delivering speech and language therapy to children with communication difficulties in Kenya. Parents, caregivers and speech language pathologists saw it as a more pragmatic approach since it improves access, reduces the logistics that come with travelling and involves the family in a great way in the process of therapy therefore what is learned can be improved and implemented even beyond the therapy sessions. The great significant relationship that can be seen between tele practice and communication gains where evidence enough of the clinical value that tele practice brings forth. However, there are issues such as limited access to network and technology, uneven caregiver preparedness has remained the main challenges. For the tele practice method to be sustainable, then digital inclusion, trainings of caregivers, professional development for therapists must be put in place. With these implementations, tele practice can improve accessibility and service delivery in Kenya.

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