CHAPTER 4

INTERROGATING PARENTAL PARTICIPATION IN THE EDUCATION AND GENERAL DEVELOPMENT OF THEIR DEAF CHILDREN IN ZAMBIA

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Summary

Parents have a critical role to play in the education of their children. Their participation is likely to facilitate positive academic achievement and optimal development. In any case, parents' participation is a gateway to realising full inclusion of Deaf children in schools. This study interrogated the participation of parents and guardians in the education and general development of their Deaf children. A survey of 85 parents and guardians was conducted in seven districts of six provinces in Zambia. A mixed-method approach was employed. Closed and open ended questionnaires were used to collect both quantitative and qualitative data. The Statistical Package for Social Sciences (SPSS) version 16 was used to analyse quantitative data. From the quantitative analysis, frequencies, percentages and correlations between variables such as sex and data on the relationship and the desire to learn Sign Language were obtained. A Chi square test of independence helped to establish possible relationships. Verbatim excerpts from qualitative data were used to support quantitative data. The results showed that parents and guardians of Deaf children faced challenges in communicating with their children. Further, parents' participation in the education of Deaf children was limited by difficulties in communication and lack of support from experts. No significant differences were observed between male and female parents and guardians in relation to knowing Sign Language as the main challenge they faced. The study concluded that the realisation of full inclusive education should start from home. Based on the results, it was recommended that the Ministry of General Education and other stakeholders should provide outreach services which include lessons in Sign Language for parents to enhance their participation in the education and general development of Deaf children.

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1 Background

The concept of inclusive education has been embraced by the Zambian government and there is ample evidence of domestication of the laws through the Disability Act of 2012 and education policies that talk about inclusive education in the country.[1] Particularly, the 1996 Educating Our Future policy document on education laid the foundation for the implementation of inclusive education in Zambia. The Zambia 2012 Disability Act categorically prohibits discrimination of persons with disabilities and guides schools and other institutions to be inclusive while considering reasonable accommodations that make inclusion realistic not only in education but also in all institutions in the country.[2] However, while the Disability Act of 2012 clearly explains how persons with disabilities should be treated in government institutions, the family as an institution appears not to have been directly addressed on how inclusive it should be, yet, it should not be ignored that discrimination may start at family level. Ignoring the family in the inclusive agenda leaves more of the grave causes of disability to be a creation of society. Thus, the social model continues to hold society responsible for causing and worsening disability.[3] For instance, children who are Deaf face barriers in communication within their families, barriers that are not created by the children themselves but by the family's failure to learn Sign Language (SL). As such Deaf children may find themselves discriminated against within their own family, yet they have an alienable right to belong to family.

The 1989 Convention on the Rights of the Child (CRC) clearly states the principles of non-discrimination, respect for the child's interests, survival and development and respect for the child's views.[4] The United Nations Convention on the Rights of Persons with Disabilities (CRPD), which came into force in 2008, has eight principles for inclusion.[5] These are non-discrimination, equality of opportunity, full and effective participation, respect for differences and acceptance of persons with disabilities as diversity and accessibility, equality between men and women, respect for inherent dignity to make choices and respect for evolving capacities and identities of persons with disabilities.[6] The main

1 M Chitiyo & FC Muwana 'Positive developments in special education in Zambia and Zimbabwe' (2018) 14 *International Journal of Whole Schooling* 93.
2 The Disability Act 6 of 2012.
3 UNICEF Innocenti Research Centre 'Promoting the rights of children with disabilities' (2007) 13 *Innocenti Digest.*
4 As above.
5 United Nations 'Department of Economic and Social Affairs Disability' https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/the-10th-anniversary-of-the-adoption-of-convention-on-the-rights-of-persons-with-disabilities-crpd-crpd-10.html (accessed 21 June 2020).
6 L Wonani & KK Muzata 'Parenting and educating children with autism: Lived experiences of Lusaka parents – Zambia' (2019) 48 *International Journal of Sciences: Basic and Applied Research* 20.

aim of the CRPD is to realise a full development of the potential of all persons with disabilities. How would such principles be realised if the family is left ignorant about the rights of their own child and without the communication abilities to engage with their child who may be Deaf? How would the child who has a hearing impairment express his or her views and interests to parents who do not understand the child's language? These questions appear to be ignored in research, policies and laws. Inclusive education entails that Deaf children participate in the daily activities of their lives in the family and in the community. Participation is not merely placing a person with a disability in the mainstream.[7] Article 24 of the CRPD says access to the mainstream for persons with profound disabilities can be realised when nations address specific needs of children with severe and complex sensory impairments such as SL, Braille and low-vision aids.[8] In this paper, I examine the barriers in communication between parents and Deaf children and the nature of difficulties they face. Since there are different categories of hearing impairment (mild, moderate, severe and profound) I have to some extent avoided the use of the term hearing impairment because this study focused only on Deaf children who depend on SL to communicate. However, in some cases, the term 'hearing impairment' has been used to refer to the impairment.

Zambia is a signatory to major world conventions on the rights of persons with disabilities such as the CRPD and is committed to meeting the 2030 sustainable development goal on education that emphasises inclusiveness, equity and lifelong learning.[9] However, realising the goal requires collaborative effort of government ministries and departments, Non-Governmental Organisations and the Zambian community at large. In particular, parents of Deaf children in Zambia should be part of the inclusive agenda. The progress Zambia has made in the provision of education and policies that are aimed at improving the lives of persons with disabilities cannot be ignored.[10] After independence, the first major Act in education, (The Education Act, 1966) seemed to ignore special education. The Act allowed for the establishment of a National Council of Education at national, regional and local levels.[11] Education was offered at primary, secondary and tertiary levels through public, private and grant aided institutions.[12] There was no mention of special education as a subject or as a mode of delivery in the Act. However, the Act provided for the minister to authorise the teaching of any other subject that was not

7 E Johnson & KK Muzata 'Inclusive education: Implementing universal design for learning' in MK Banja (ed) *Selected readings in education* (2019) 1.
8 UNICEF Innocenti Research Centre (n 3).
9 Ministry of National Development Planning *Zambia: Sustainable development goals – Voluntary national review 2020* https://sustainabledevelopment.un.org/content/documents/26305VNR_2020_Zambia_Report.pdf (accessed 9 December 2020).
10 Chitiyo & Muwana (n 1).
11 See Government of the Republic of Zambia: The Education Act: Chapter 134 of the laws of Zambia (1966).
12 As above.

listed.[13] If this was well interpreted, it would have offered special education a chance for recognition within the 1966 Education Act. However, even if special education were to be recognised, the laws at the time were not flexible enough to support learners with disabilities. For instance, the Act did not allow learners to repeat any other grade apart from grades four or five or grade ten or 12 and no child was allowed to repeat a grade more than once.[14] In turn it did not take cognisance of learners with disabilities who may need to repeat some grades several times and may need more time to learn a subject. Over the years, Zambia, through the Ministry of General Education has scored a number of successes through policy pronouncements on the education of persons with disabilities. The Education Reforms and Recommendations of 1977 made emphasis on the provision of special education to learners with disabilities.[15] For special education reforms emphasised the significance of assessment, design of curricula and teaching materials. Further, the document prescribed suitable building infrastructure for learners with disabilities. The main categories of disabilities considered then were those with physical, intellectual, hearing and visual disabilities.[16] The 1992 Focus on learning policy document advanced that every child should learn through inclusive education.[17] The 1996 Educating our Future policy document pronounced the provision of special education in Zambia premised on equal educational opportunities for children with special education needs, quality education provision, and effective supervision and monitoring of special education.[18]

Several strategies were identified on how best to meet equality and the quality of education provision for learners with special education needs. Learners with special education needs in Zambia refer to learners with disabilities including learners with hearing impairment.[19] This includes learners who are Deaf. Among the strategies were decentralisation of services, assessment and placement of children with special educational needs, integration of the learners with special educational needs in the mainstream, cooperating with religious, private, community and philanthropic organisations.[20] Of all the strategies, none points directly to working with parents of children with disabilities. However, one statement in the policy that came close was the provision of outreach services to children whose disabilities prevent normal attendance in school.[21] The outreach services concept if well implemented would ensure that the gap

13 As above.
14 As above.
15 The Ministry of Education Reforms *Proposals and recommendations* (1977).
16 As above.
17 Ministry of Education *Focus on learning: Strategies for the development of school education in Zambia – Report of the team appointed to review Investment Strategies in Education* (1992).
18 Ministry of Education *Educating our future policy: National Policy on Education* (1996).
19 Ministry of General Education *Inclusive education and special education in Zambia: Implementation guidelines* (2016).
20 Ministry of Education (n 15)
21 Ministry of Education (n 18).

at the centre of this study would be covered and inclusion would turn into reality especially for Deaf learners.

Further, the inclusive education and special education guidelines for Zambia highlight parental involvement in terms of participating in the development of the Individualized Education Programmes (IEP), assessment procedures, having access to assessment reports and monitoring the performance of their children with special educational needs.[22] The document does not address how parents of Deaf children would get involved when they (parents) have a limitation in SL. The success of the inclusive education policy and the realisation of the rights for Deaf children should also be measured by the participation of parents in the education of their children. SL is crucial for Deaf learners to access the curriculum. SL is the best medium through which the curriculum can be delivered to deaf learners. The participation of parents in the education of their Deaf children is one of the best strategies to achieve curriculum access. The Ministry of General Education in Zambia is making efforts to train teachers to teach learners with hearing impairments and other disabilities in colleges and universities. Although the Ministry of General Education in Zambia recognises the invaluable contribution of parents to children's education by providing knowledge and supportive environment,[23] efforts to support parents of Deaf children have not been documented. Support for parents to provide a strong foundation for their children's education is needed before and during their time in and out of school.

Parents have a critical role to play in not only education, but also the overall development of their children who are Deaf. They play a big role in helping their children do homework and interact with them in daily routines. However, with SL as a barrier, parents cannot afford to help their children in school work and overall daily interaction. Significant degrees of isolation of Deaf children in hearing families by their immediate, extended families and communities have been reported.[24] For a child to attain optimum development, interaction with family members is crucial. There are two major categories of Deaf children: those who are born without a sense of hearing (congenitally Deaf) or become Deaf early enough before they acquire language (Pre-lingually Deaf); and those who develop hearing impairment after acquiring language (Post-lingually Deaf). Some children with post lingual hearing impairment are able to communicate using speech although they cannot hear depending on the age at which they lose their sense of hearing. They depend on lip reading

22 Ministry of General Education (n 19).
23 See Ministry of Education booklet written by Mbewe Moffart titled *Principles & practice: Teaching the Deaf in schools – Teachers' guide* (2014).
24 PE Spencer, C Erting & M Marscharck *The Deaf child in the family and at school* (2000).

to get what another person is saying.[25] Whatever the case, communication becomes limited when the sense of hearing is inhibited by any form of circumstance. For Deaf children, from birth, their development is likely to be adversely impaired once parents and family members who are the first agents of socialisation fail to engage them in developmental socialisation. According to Bronfenbrenner's ecological systems theory children's development takes place within a context of environmental influences that have direct or indirect effects on them.[26] Bronfenbrenner's theory explains that children do not develop in isolation. The immediate family context is crucial in the child's development.[27] What brings children closer to their family in addition to the basic needs is language. Language is a vehicle for interaction that facilitates child development within a family context and beyond. Bonding, social, emotional, cognitive and linguistic development of children is dependent on communication with the children. Deaf children like other children without disabilities need to experience the sense of love and belonging from their immediate families and neighborhood.[28] They need to interact not only with their parents, but also with the rest of the family members and beyond. However, when a communication barrier is experienced between parents and their children with severe hearing loss, the children are more at risk of the negative impact of communication on their development. Ordinarily, failure by parents to communicate with their children who have severe hearing impairment may be construed by the affected children as a lack of being loved. Language provides a foundation for communication, problem solving, analysis and other higher level cognitive skills.[29] Therefore deficits in language can have a profound negative impact on an individual's ability to learn and function competently and confidently in the environment. Learning starts from home. Before a child goes into school, they acquire a substantial amount of concepts from the interaction they have at home. If language becomes an inhibition to communication in a home, children, especially those with severe hearing impairment will get into school with many difficulties.

Though limited studies have been conducted in the area of parenting children with hearing impairment, available literature reveals that most of Deaf children born from hearing parents lag behind in development because parents do not know SL. Lack of skills in SL among hearing parents was a major reason that contributes to the majority of Deaf

25 IRR Ortiz 'Lip-reading in the Pre-lingually Deaf: What makes a skilled speech-reader?' (2008) 11 *The Spanish Journal of Psychology* 488.

26 AL Jung 'Identifying families' supports and other resources' in RA MaWilliam (ed) *Working with families of young children with special needs* (2010).

27 J Lindon *Understanding child development 0-8 years* (2015).

28 HA Johnson 'What have we learned from research in deaf ed?' Michigan: Hands and Voices (2014). http://www.handsandvoices.org/articles/research/v12-4_research.htm (accessed 10 July 2018).

29 R Pierangelo & G Giuliani *Teaching in a special education classroom: A step-by-step guide for educators* (2008).

children growing up with limited access to SL as well as spoken language.[30] If language is not well developed in childhood, it goes further to affect the academic performance of children when they enter school. Language helps humans to interact, a social factor necessary for child development. Deaf children may face challenges communicating with peers who do not know SL. Social factors may contribute to a child's stress and consequently interfere with learning.[31] This may eventually lower the available ability children may inherently have and result in academic dysfunction. Clearly, the importance of language and indeed SL cannot be overemphasised. It is language that enables children to play with peers. Language shows whether one's pace of cognitive development is normal or not.

2 Theoretical background

Many theories explain the role of the environment in child development. One influential theory that explains the role of the environment in child development is the Ecological Systems Theory by Urie Bronfenbrenner.[32] According to this Theory, there are four main layers through which a child's development can be best explained. These are the microsystem, mesosystem, exosystem and the macrosystem layers.

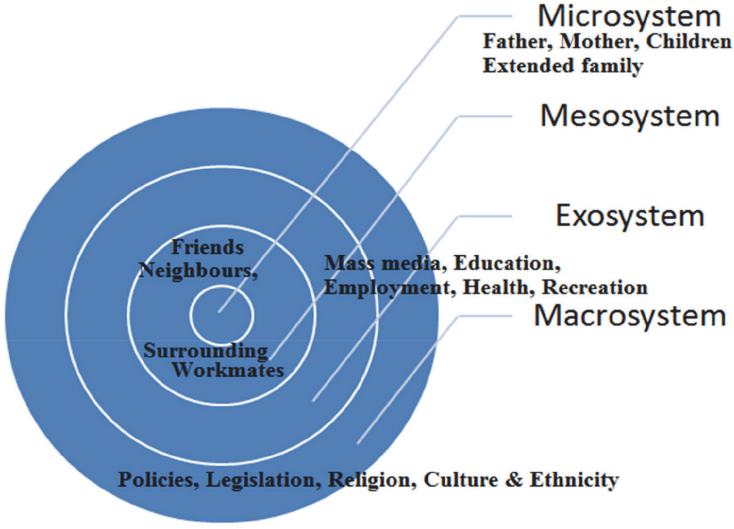

Figure 1: llustration of the Bronfenbrenner's main layers in child development.

30 Spencer, Erting & Marscharck (n 24).
31 As above.
32 Lindon (n 27).

The family (inner most layer) is the child's first environment. It is the child's microsystem context comprising the father, mother, siblings and in some cultures the extended family members. The development of a Deaf child is dependent on the family's ability to adapt quickly to the disability in the family and help the child develop like other children. Failure to communicate will not only affect the child; it will affect the family as well. For instance, the child would fail to communicate his or her needs to the parents and family members. This may lead to frustrations on the part of the child, who may feel unloved that the needs are not provided without considering the barrier in communication. Reciprocally, parents are equally affected because they feel they do not meet the child's needs adequately and worry about their child's development. Thus, they live a life of worry and anxiety as a result.

Acceptance of the disability is dependent on the environment in which the family is situated. For example, it is dependent on the attitudes in the family's immediate surrounding (mesosystem), and the help anticipated from the exosystem (the school, healthcare and other services). It is also dependent on the extent to which the policies that support the child (macrosystem level) are implemented. For a family with a Deaf child, SL is a basic need. The main concern that relates to this study is policy at the macrosystems level versus the child at the microsystems level. The question is, 'is there national or local school policy' that empowers parents of Deaf children in SL? If there is absence of policy about how parents can participate in the development and education of deaf children, the exosystem level in which education as a social service is found would be defective. Thus, education would not provide the needed outreach services to the child in the home. When parents are not empowered through policy and education or specifically when they are not taught SL or provided with the tools to learn the language, they cannot participate in the education and facilitate optimal child development through interaction. Children's developmental services are better provided to the people in the child's life. The people who are directly involved in the child's life are parents and guardians. One of the most important and early support services to those involved directly in the child's life is language.

For a Deaf child, the provision of SL teaching to parents would overcome possible communication barriers and facilitate smooth interaction between the child and parents. Mitchell suggests that parents of children with disabilities require training in various areas to help them cope with the disabilities their children have.[33] Mitchell further suggests behavioural parent training and parent-child interaction therapy among others as areas parents need support in.[34] For parents of Deaf, training in SL would be a key support service professionals can provide. There are

33 D Mitchell *What really works in special and inclusive education: Using evidence based teaching strategies* (2008).
34 As above.

three main forms of support for families, namely emotional support, material and informational support.[35] For parents of Deaf children, the anxiety they experience as a result of failing to communicate with their own children needs to be addressed with counseling as an emotional support. Parents may also need material support in the form of hearing aids for children with residual hearing or financial support to allow parents take their children for expert advice. Informational support includes knowledge of the impairment, it causes and how children react so that parents come to understand their children and stop negative labeling.

Several strategies should be employed to help parents of Deaf children learn SL. For instance, Starner and Weaver listed books, DVDs, websites and evening classes as some of the ways to help reach out to parents of Deaf children to teach them SL.[36] Starner and Weaver reported the increase in popularity of parents using websites to learn SL. Most websites provide a dictionary; however, some are not browsable without first acquiring a login which may cost money.[37] Further, parents did not favour using books to learn SL because books were difficult to understand. DVDs were still more popular among parents than books.[38] The use of websites requires an effective fast internet service. Poeppelmeyer and Reichert reported educators in Texas' successes in teaching parents of Deaf children SL through videophones, although access to fast internet was a challenge for some parents. The use of iPads, videophones, computers, Skype and ooVoo proved to provide parents access to SL lessons.[39] Currently, Skype and many other social media video conferencing facilities provide free service and if parents had access to the facilities and internet, learning of SL would not be a problem. Although not all parents can afford to access internet in the Zambian context, there are families that may have access to such facilities, but lack knowledge about how the facilities can be used as a resource for learning SL. DVDs and VCDs may be affordable by Zambian parents who have access to the SL video download. Parents need support with facilities such as computers, iPads, and video-phones to learn SL. Such facilities have been reported being provided to American parents of Deaf children through higher education institutions, schools for the Deaf, and churches. However, Mutswanga observed that some parents were not in favour of the credits attached to taking the lessons while others reacted favourably to the fun games that were played during lessons.[40]

35 AL Jung 'Identifying families' supports and other resources' in RA McWilliam (ed) *Working with families of young children with special needs* (2010) 9.
36 T Starner & KA Weaver *We need to communicate! Helping hearing parents of Deaf children learn American Sign Language* (2011).
37 As above.
38 As above.
39 D Poeppelmeyer & L Reichert *Pioneering program teaches families Sign Language through tele-intervention* (2015).
40 P Mutswanga 'The hands with eyes and nose in the palm: As effective communication alternatives for profoundly Deaf people' (2017) 8 *Zimbabwe Journal of Education and Practice* 103.

A study of effective communication strategies for Deaf learners in Zimbabwe by Mutswanga, found that the majority of persons with profound hearing loss considered visual cues as an effective tool to communication, among other strategies, such as use of sign interpreters. However, the use of interpreters in the case of parents and guardians of Deaf children may not be sustainable. The use of such a strategy means that parents need to continuously depend on interpreters to interact with their child, which may not be sustainable because interpreters may not always be available. Even then, the use of an interpreter puts an artificial barrier in between the bond that should exist between parents and the child in their interaction. The best alternative for parents and guardians of Deaf children is learning SL so that they directly interact with the children.

Another intervention is cochlear implants. In the developed world, hearing impairment may not present serious challenges because cochlear implants have aided Deaf children to be able to learn speech and communicate ordinarily with family members and beyond. For instance, in the United States of America, cochlear implantation, is an effective technology for reducing hearing loss. It is a common technology used in the United States of America, although many Deaf people do not utilise technology because they prefer to promote the use of SL. Other reasons for low utilisation are low awareness of the benefits of cochlear implants among the population and healthcare professionals; the lack of specific referral pathways; some political issues relating to the Deaf Community; and financial constraints.[41] The reasons for low or non-uptake of the cochlear implant service in the underdeveloped world resides in the non-availability of cochlear implant technologies, experts and lack of affordability in terms of finances to access the service,[42] yet the majority of people with hearing impairment live in the developing world. The higher cost of cochlear implants in the developing world is a major prohibiting factor for access to the service. [43]

In Nigeria for instance, technology for Cochlear implants is reported to be too expensive for parents of Deaf children to afford.[44] The situation in Nigeria may not be any different from Zambia especially because Zambia is a third world country. The attainment of inclusive education can

41 DL Sorkin 'Cochlear implantation in the world's largest medical device market: Utilization and awareness of cochlear implants in the United States' (2013) 14 *Cochlear Implants International* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3663290/#s5title (accessed 23 June 2020).

42 K Krishnamoorthy, RN Samy & N Shoman 'The challenges of starting a cochlear implant programme in a developing country' (2014) 22 *Current Opinion in Otolaryngology and Head and Neck Surgery* 367.

43 AO Suleiman et al 'Paediatric cochlear implantation in north-western Nigeria case report and review of our challenges' (2014) 78 *International Journal of Pediatric Otorhinolaryngology* 363.

44 GB Babudoh 'Family involvement in educating of children with congenital and profound hearing impairment' *Conference proceedings of the International Association of Special Education* (2015).

be made more possible when parents are empowered with skills to help them communicate and interact with their children with disabilities to facilitate development. This study was therefore conducted to establish the experiences families of children who are Deaf face in communicating with Deaf children in Zambia.

3 Purpose of the study

The purpose of this study was to establish factors that affect parents' participation in the education and general development of their Deaf children. By establishing parents and guardians' experiences, the factors that affect their participation in the education and general development of Deaf children can be established. The study was guided by the following objectives:

a) To examine whether parents and guardians were able to communicate with their Deaf children or not.

b) To establish the different types of communication styles parents and guardians use to communicate with their Deaf children.

c) To establish parents and guardians' perceptions about their Deaf children.

d) To establish parents and guardians understanding of the impact of communication difficulties on the development of Deaf children.

4 Research questions

The following were the research questions used in the study:

a) Are parents and guardians of Deaf children able to communicate with their children?

b) What types of communication styles are used by parents and guardians to communicate their Deaf children?

c) What are the perceptions of parents and guardians of deaf children towards their Deaf children?

d) Do parents understand the impact of communication barrier on their Deaf children?

5 Research hypotheses

When a researcher chooses to use mixed methods, consideration should be made that there are qualitative questions and quantitative questions or hypothesis.[45] Since this study adopted the mixed-methods approach, the following assumptions were framed:

a) Female parents and guardians communicated with deaf children in SL with fewer difficulties than their male counterparts.

b) Female parents and guardians were more willing to learn SL than their male counterparts.

c) Parents were more positive about learning SL than guardians.

d) Parents do not understand the impact of the communication barrier on Deaf children.

The assumptions emanate from both literature and cultural beliefs that females are either more troubled by or more caring than males when a child with a disability is born in a home.[46] However, Giulio, Philipov and Jaschinski observed that generally couples with a child who has disability are more frequently unstable, more often forego their fertility intentions, more frequently suffer from economic difficulties, show more traditional gender-role arrangements, are more frequently in bad health, and have lower well-being than families without disabilities.[47]

In an investigation of North West Arkansas parents' attitudes and stress levels of parents involved in the hands and voices programme, parents moderately agreed that it was stressful learning a new modality to communicate with their children and language was said to be the barrier.[48] Other studies report that parents of Deaf children do not report much stress levels as was reported by parents of hearing children.[49] This study points to the attitudes towards learning SL by parents. There are also notions held against Deaf children that they are generally short tempered or aggressive. However, a study by Hankins on social interaction between Deaf and Hearing people found that the data did not support the hypothesis that the responses of people with hearing ability would reflect negative attitudes

45 JW Creswell *Research n: Qualitative, quantitative and mixed methods approaches* (2014).
46 H Featherstone *A difference in the family: Life with a disabled child* (1980).
47 PD Giulio, D Philipov &I Jaschinski 'Families with disabled children in different European Countries' *Families and Societies, Changing families and sustainable societies: Policy contexts and diversity over the life course and across generations* (2014) 1.
48 EC Davies 'Parenting attitudes and stress levels among parents of children who are deaf' Rehabilitation, human resources and communication disorders Undergraduate Honors Theses, University of Arkansas, Fayetteville, 2015http://scholarworks.uark.edu/rhrcuht/40 Rehabilitation, *Human Resources and Communication Disorders Undergraduate Honors* (accessed 10 July 2018).
49 AL Quittner et al 'Parenting stress among parents of deaf and hearing children: Association with language delays and behaviour problems' (2010) 10 *Parenting, Science and Practice* 136.

and beliefs about Deaf people.[50] Such beliefs can better be dispelled through studies that provide checks through correlations, hence a portion of the assumptions were to detect parents and guardians perceptions towards Deaf children.

6 Methods

6.1 Participants

A total of 85 respondents were targeted in seven districts of six provinces in Zambia. Respondents were purposively sampled through a snowball technique. This technique, also called chain sampling, is used when a researcher uses the first participant to direct him or her to other participants with similar characteristics for a study.[51] This is because it was difficult to locate families that had Deaf children in each area. Therefore, the need to identify the first respondent was cardinal to lead the researchers to other respondents. Purposeful sampling is known for its effectiveness in collecting the desired information from targeted respondents known to possess such information.

6.2 The survey instrument

This study employed the mixed method design. Mixed methods involve the use of quantitative and qualitative methods together to study a research problem.[52] However, the study was mainly influenced by the quantitative approach while the qualitative acted as a support approach to the quantitative data. Data were collected by the use of closed- and open-ended survey questionnaires. A questionnaire is known for its strength in collecting large amounts of data from a wider population. Questionnaires have enormous advantages including collection of information from large sample and diverse regions.[53] This helps in data generalisation and arriving at deductive conclusions. The questionnaire collected demographic data and data for the main research questions. The demographic data provided characteristics of the respondents such as the districts where they were drawn from, their sex, whether they were in formal or informal employment and the grade levels of the Deaf children they were keeping. The first main research question was meant to determine the extent to which parents and guardians were able to communicate with Deaf children. Thus respondents were asked to tick

50 RC Hankins 'Social interaction between Deaf and Hearing people' Unpublished thesis, University of Mississippi, 2015.
51 KK Muzata 'Complexities of sampling in special education: A Zambian contextualised analysis' (2020) 6 *European Journal of Special Education* 96.
52 Creswell (n 45).
53 P Mukherji & D Albon *Research methods in early childhood: An introductory guide* (2015).

'Yes' or 'No' and 'Yes, but not very well'. Respondents who answered '"Yes' to the first question were further asked to tick from options whether they were able to communicate with Deaf children. A scale was provided and respondents were required to tick 'Well', 'Very well' and 'Well, but with difficulties'.

The second research question sought to find out what strategies respondents used to communicate with the Deaf children. Some strategies were outlined for selection, but space was provided for respondents to write other strategies that did not appear on the list. The outlined strategies were pointing, dragging the person, writing on the ground, lip reading, and writing on a piece of paper. The third question was to establish the perceptions of the respondents towards Deaf children. They were asked questions about how the children reacted when there was communication breakdown between them and how they (parents and guardians) reacted in return. The listed reactions were: getting annoyed, smiling and withdrawing. Respondents were required to write any other reactions that were not listed. Respondents were further asked on their general perceptions about the temperament of Deaf children. The question regarding temperament had three options, 'Yes', 'No' and 'Sometimes'.

The survey instrument further collected data on the respondents understanding of the impact of lack of SL on their part as parents and guardians on the Deaf children. This was an open ended question meant to examine their understanding. Open ended questions provide rich information about attitudes, ideas and values that people hold.[54]

The other question on the survey instrument asked about the respondents' willingness to learn SL. The question required 'Yes' and 'No' responses. This was meant to help the researcher verify the genuineness of the responses they were giving to earlier questions and to determine their attitudes towards learning SL. Respondents who were not willing to learn SL were further asked to indicate the reasons. The last question was on suggestions to help them learn SL if they were willing to learn.

While the respondents answered most questions, some questions were not answered. This did not affect validity and reliability of the data because on each questionnaire, either all or more than three quarters of the questions were answered.

6.3 Data Collection

The researcher collected data from Lusaka and Central provinces while research assistants collected from the Southern, Eastern, Copperbelt and Northern Provinces. The research assistants, who were research students

54 Mukherji & Albon (n 53).

in their final undergraduate year of study at the University of Zambia, were trained before they went to administer the questionnaires. Guidance was given to research assistants to help them read questions and write responses for respondents who were not literate. To ensure high return rate of the questionnaires, research assistants were advised to administer and collect the completed questionnaires immediately after respondents answered.

6.4 Data Analysis

Data analysis started with researcher triangulation checkups of the questionnaires that were received. First perceptions indicated similar and natural responses from the various research sites. This was a prior assurance of reliability and validity. Completion rates were satisfactory though not 85-100 per cent, but good enough for quantitative data analysis and drawing conclusions. Missing numbers were too few to affect generalisation. All questionnaires had most questions answered. After data cleaning, categorising and identification of variables, quantitative data were entered in Statistical Package for Social Sciences (SPSS version 16) for analysis. Part of qualitative data were transformed into variables and coded into SPSS as quantitative data to derive frequencies and percentages. This practice is allowed in mixed-methods research.[55] Other qualitative responses were typed under identified themes within the research objectives and questions. Descriptive statistics, frequencies and cross tabulations were run to make sense of the data. A non-parametric test, the Chi square test of independence was used to run associations between data and to test the assumptions made. For instance, a test was run to determine whether there were significant differences between males and females' ability to use SL and willingness to learn SL. A further test was run to determine whether the type of relationship between the parents and Deaf children was related to their willingness to learn SL. The phi (φ) was used to determine the strength of any possible relationship or association. The alpha (α) significance level used was .05.

7 Results

7.1 Demographic data

The study conducted in 2017 collected data from 85 respondents in seven districts of six provinces. Demographic data collected related to districts where the respondents were drawn from, sex, grade level of Deaf children, and whether the parents and guardians were in formal or informal employment. The demographic data helped in data analysis by running

55 P Connoly *Quantitative data analysis in education: A critical introduction using* SPSS (2007).

some relationships in some cases while part of it remained informative. Table 1 shows the demographic frequencies and percentages of the respondents for this study.

Table 1: Demographic Survey Data

Characteristic (Province)	**District**	**Frequency**	**Percent (%)**
Lusaka	Lusaka	8	9.4
Eastern	Petauke	7	8.2
Northern	Kasama	15	17.6
Central	Chisamba	5	5.9
Southern	Monze	11	12.9
Lusaka	Luangwa	27	31.8
Copperbelt	Luanshya	11	12.9
	Missing	1	1.2
	TOTAL	**85**	**100**
Grade Level of the deaf children respondents were living with	Grade 1 -7	37	43.5
	Grade 8-9	6	7.1
	Grade 10 -12	20	23.5
	Not in school	13	15.3
	Missing system	9	10.6
	TOTAL	**85**	**100**
Relationship with the Child	Son	27	31.8
	Daughter	14	16.5
	Sister	12	14.1
	Brother	9	10.6
	Cousin	12	14.1
	Other	6	7.1
	Missing system	5	5.9
	TOTAL	**85**	**100**
Sex of Parents and Guardians	Male	37	43.5
	Female	48	56.5
	TOTAL	**85**	**100**

Whether family member works or not	Dependant	12	14.1
	Formal employee	8	9.4
	House wife	25	29.4
	Informal employment	18	21.2
	Missing	22	25.9
	TOTAL	**85**	**100**

From Table 1, it is evident that Deaf children are prevalent in the country. The table further shows that some Deaf children were not in school and the relationships of parents and guardians with Deaf children were varied. Only 41-48.3 per cent Deaf children lived with their biological parents.

7.2 Research Question 1: Are parents and guardians able to communicate with the Deaf children?

Respondents were asked to indicate whether they were able to communicate with the Deaf children in their families. The results were cross tabulated and a Chi square test run to determine whether there were significant differences between males and females and their ability to communicate with the Deaf children in their home. Table 2 shows the results:

Table 2: Cross tabulated data of males and females ability to communicate with Deaf children

Characteristic	**Category**	**Yes**	**%**	**No**	**%**	**Not very well**	**%**	**Total**	**%**
Communicating with deaf children (Missing = 2)	Male & female	31	37	33	40	19	23	83	100
Parents/Family's ability to communicate with Deaf children (p = .626 >.05)	Male	9	47.4	12	36.4	15	46.9	36	42.9
	Female	10	52.6	21	63.6	17	53.1	48	57.1
	Total	19	100	33	100	32	100	84	100

*Significant at .05 alpha level

Generally, the results show that most parents and guardians were not able to communicate with Deaf children due to lack of SL. Most respondents,

33–40 per cent, were not able to communicate; 31–37 per cent were able to communicate, but not very well; while 19-23 per cent were able to communicate. There were no significant differences between male and female respondents and the ability to communicate with Deaf children. Chi-square results showed (χ^2 (2, N = 84) = .937, p = .626 >.05). This means sex was not related to their ability to use SL, thereby dispelling the assumption that, 'female parents and guardians communicated better with Deaf children in SL than their male counterparts'.

7.3 Research Question 2: What are the types of communication styles used by parents and guardians to communicate with Deaf children?

Respondents were further asked about the strategies respondents were using to communicate with Deaf children in their homes. From the results, parents used pointing, lip reading, looking at the person directly, writing on the ground, dragging the person and writing on a piece of paper. The most common form of communication used by parents and guardians was pointing; 34-45 per cent. From all the forms of communication used by parents, none provides fluent and complete interaction. There are limitations involved when communicating using pointing, lip reading and writing. Thus, fluency in communication is restricted. For instance, pointing to objects as a form of communication may not give full meaning. Lip reading also has its own limitations which includes misinterpretation. One of the parents recounts:

> I use pointing to send her to pick what I want, sometimes writing on the ground but you see it's not easy for the child always to understand what you want fully. This is the problem we face.[56]

Another parent who used lip reading said:

> When I use lip reading, this is a problem. You find that the child is just looking at you. You have to repeat and you end up getting frustrated just on simple things.[57]

Lip-reading can best be used when accompanied with cued speech to clarify the ambiguities that lip reading poses.[58] In any case, lip reading is more suitable for Deaf persons who have previously learnt speech than those who have no previous knowledge to lip read a language they cannot hear.[59]

56 Parent No 6, female, 4 March 2017, Lusaka.
57 Parent No 17, female, 21 March 2017, Lusaka.
58 Ortiz (n 25 above).
59 B Goss 'Hearing from the Deaf culture' (2003) XII-2 *Intercultural Communication Studies* 1 https://web.uri.edu/iaics/files/03-Blaine-Goss.pdf (accessed 10 July 2018).

7.4 Research Question 3: What are the perceptions of parents and guardians about communication with Deaf children?

The third question required respondents to give their perceptions about Deaf children. To collect data for this question, respondents were asked to state how Deaf children react when there was a breakdown in communication. They were further asked to indicate 'Yes' or 'No' to whether they perceive Deaf children as short tempered or not. The parents and guardians were also asked how they reacted to communication breakdown with Deaf children. Figure 2 shows frequencies and percentages of the different reactions that they demonstrated:

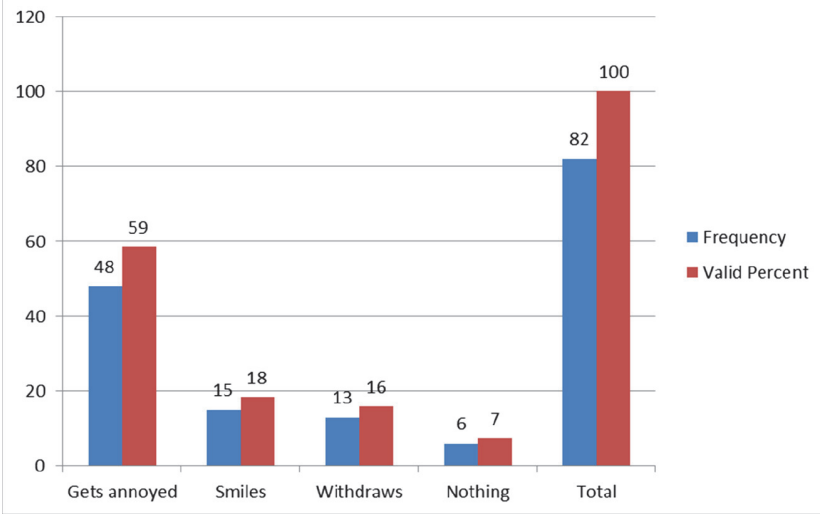

Figure 2: Child reactions when they encounter breakdown in communication with parents

From the results, most parents reported that Deaf children reacted angrily when there was a communication barrier. Other reactions that parents indicated were smiles and withdrawal behaviour. The perception that their children mostly get annoyed leads to negative labels such as 'children who are deaf are short tempered'. Figure 3 shows results to the question on whether parents regarded Deaf children as short tempered or not:

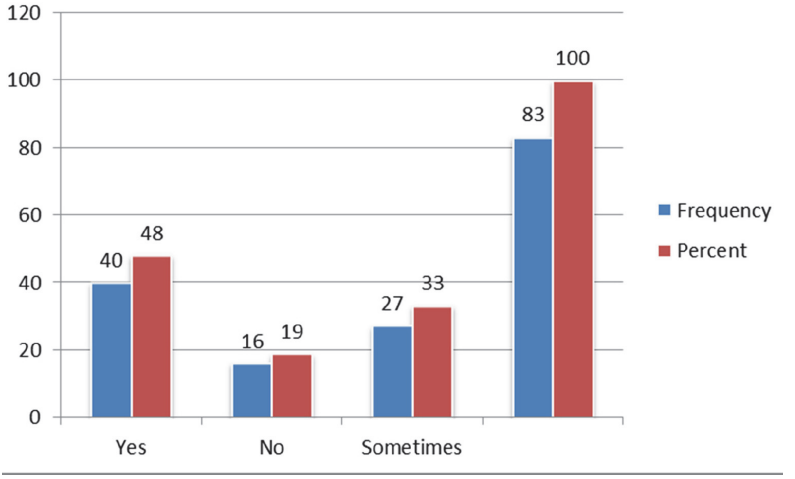

Figure 3: Perceptions of parents on whether Deaf children are short tempered or not

Respondents' perceptions towards their Deaf children's temperaments differed. Forty to 48 (40-48 per cent) believe deaf children are short tempered, while 16-19 per cent believe they are not short tempered, and 27-33 per cent believe Deaf children are sometimes short tempered. Based on the results, there seem to be a building perception that Deaf children (40-48 per cent) were generally short tempered.

When parents and guardians were asked about how they reacted to communication breakdown with their Deaf children, various reactions were reported. This is categorised in Figure 4:

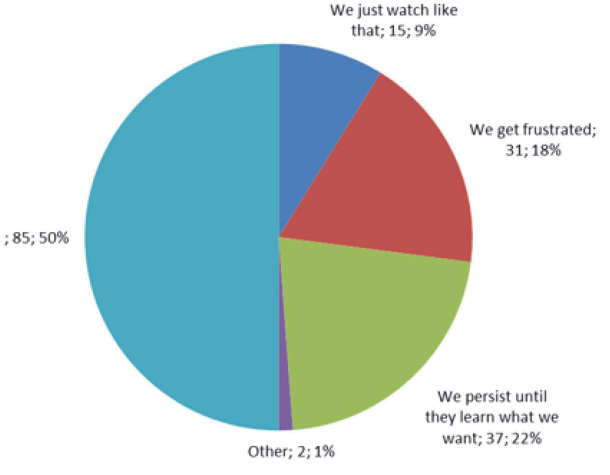

Figure 4: Parents/Guardians reactions when they encounter barriers with Deaf children

Parents mostly reported that they persisted to make Deaf children learn what they wanted them to learn, 37-22 per cent, but they also got frustrated by the failure to have fluent communication with their children, 31-18 per cent. Some parents and guardians gave up when they experienced communication breakdown, thus they just watched, 15 (9 per cent). One parent said, 'I used to get annoyed when the child could not get what I am saying but I am now used, I understand'.[60]

7.5 Research question 4: Do parents and guardians understand the impact of communication barrier on Deaf children's education and development?

When parents and guardians were asked about the impact of communication barrier on the education and general development of Deaf children, results show that parents have some degree of understanding of the impact. Figure 5 shows the frequencies of the responses given by respondents:

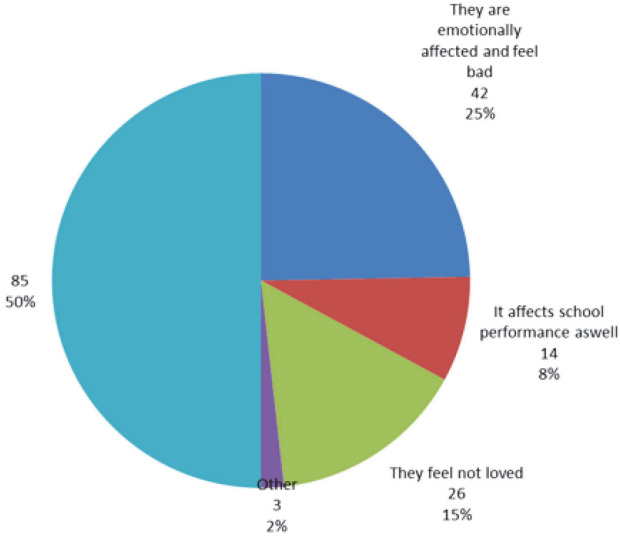

Figure 5: Parent understanding of the impact of communication barriers with Deaf children

From Figure 5, parents and guardians show understanding that Deaf children feel emotionally affected when they encounter communication breakdown, 42-49 per cent. Parents and guardians further understand that the lack of SL also affects school performance of Deaf children and that the

60 Parent No 33, male, 12 March 2017, Central province.

children further felt unloved. The following expressions represent parents' explanations of the impact:

> Sometimes I feel guilty, I don't know whether my child thinks I love him or not because sometimes things just remain hanging because of communication barrier, even with school work we can't help properly.[61]

Another parent said:

> How can they feel loved when you cannot help them with their school work? To me it seems even teachers have problems helping my child because he does not pass most tests and exercises.[62]

These expressions demonstrate parents' understanding of the impact barrier to communication has on Deaf children. However, it seems they do not have solutions to the problems they face communicating with Deaf children. Thus, they were further asked to state whether they would be willing to learn SL.

7.6 Parents and guardians' willingness to learn SL

Following the question on whether parents and guardians understand the impact of lack of communication on education and general development of Deaf children, they were asked to state and explain whether they would be willing to learn SL. Table 3 shows the results comparing male and female parents and guardians' responses:

Table 3: Parents and Guardians' willingness to learn SL

Characteristic	Category	Yes	%	No	%
Parents willingness to learn SL (P value =.044*)	Male	32	38	5	6
	Female	46	55	1	1
		78	93	6	7

*Significant at .05 alpha level

A significant association was observed in the parents' perceptions towards learning SL. The Chi square results showed (χ^2 (1, N = 84) = 4.046, p = .044 <.05). This shows a significant association. Female parents seemed more willing to learn SL when compared to male parents.

61 Parent No 67, female, 15 March 2017, Northern province.
62 Parent No 34, male, 23 March 2017, Southern province.

Another Chi-square test was run to determine whether there was a significant association between the type of relationship parents and guardians had with the Deaf children and the willingness to learn SL.

Table 4: Did relationship matter in choosing to learn SL?

Characteristic	**Category**	**Frequencies of Responses**	
		Yes	**No**
If someone is willing to teach you SL, would you accept	Son	26	1
	Daughter	14	0
	Sister	11	0
	Brother	7	2
(P value = .050*) Strength at (ω = .374)	Cousin	9	3
	Other	6	0

*Significant at .05 alpha level.

The test showed a positive relationship at (χ^2 (5, N = 79) = 11.054, p = .05 =.050). The strength of the relationship, however, lies between medium and large at (ω = .374). What the results bring out is that the closer the relationship with the Deaf child, the higher the willingness to learn SL. Thus, parents were more likely to be willing to learn SL than guardians. From the results, there were brothers and cousins that were not willing to learn SL. Respondents that did not want to learn SL gave reasons of being busy at work and that SL was difficult to learn. For instance, one respondent said, 'I am usually busy at work. I rarely have time at home so it's difficult for me I think, unless maybe at weekends'.[63] Another respondent said, 'I think SL is just difficult for me to learn'.[64]

However, generally from the results, parents' willingness to learn SL is a positive sign for initiating partnerships and interventions to teach them SL and other skills necessary to facilitate normal development of Deaf children. For instance, one respondent wrote:

> I am interested but there is no one to teach so … there was a time when we started learning SL at our church but that programme just ended, I don't know what happened.[65]

63 Parent No 44, male, 12 February 2017, Lusaka.
64 Parent No 58, male, 14 February 2017, Eastern province.
65 Parent No 28, female, 8 March 2017, Southern province.

Another parent wrote, 'Through having special programmes at work, I can be helped.'[66]

Parents made several suggestions of how best they could learn SL. They suggested having SL clubs, going to school to learn SL, having SL books, television lessons, having evening lessons and attaching a special teacher to homes where there were Deaf children. One of the parents mentioned the use of internet to learn SL.

8 Discussion

The 2010 Census of housing and population in Zambia reports that 9.2 per cent of the population of persons with disabilities are hard of hearing, 2.5 per cent are both deaf and dumb, while another 2.5 per cent are deaf. Overall, 2 per cent of the Zambia's population is disabled.[67] The 2010 census further reveals that 65.5 per cent of persons with disabilities drop out at primary school level, 24.1 per cent secondary school level, and 8 per cent tertiary level.[68] The International Labour Organisation reveals that the employment rates for persons with disabilities in Zambia is lower at 45.5 per cent with most them (80 per cent) employed in the agriculture sector.[69] In this study, demographic data shows that 41-48.3 per cent of Deaf children were kept by their own parents, while 39-45.9 per cent lived with other relations such as sisters, brothers, cousins and others. Of the respondents that answered the question on whether they were in formal or informal employment, only 8-9.4 per cent were in formal employment, 12-14.1 per cent were dependents, 25-29.4 per cent were housewives, and 18-21.2 per cent were in informal employment. In this study, most parents and guardians were not in formal employment. In this study, most Deaf children living with parents and guardians were in grades 1-7 (37-43.5 per cent) while 6-7.1 per cent in 8-9 and 20-23.5 per cent were between grades 10-12. Deaf children out of school accounted for 13-15.3 per cent. Since this study purpose was to investigate factors that inhibit parental participation in the education of the deaf children, most of the demographic data helped to reflect on whether the education system is practically inclusive or not.

The results show that most parents and guardians, regardless of sex were not able to communicate or communicate very well with their Deaf children, namely 33-40 per cent was not able to communicate, while 19-23 per cent said they were not able to communicate very well. Only 31-37 per cent said they were able to communicate well with their Deaf children. By

66 Parent No 66, female, 8 March 2017, Southern province.
67 Central Statistical Office Zambia 2010 Census of population and housing (2012).
68 As above.
69 International Labour Organisation 'Inclusion of People with Disabilities in Zambia: Fact Sheet' (2013).

sex, there were no significant differences between male and female parents and guardians (p value = .626 > .05). The results still show agreement with other studies[70] reporting that most hearing parents have limited access to SL. Although Featherstone argues that females are more concerned and caring about disability in terms of learning SL, this study found no differences between male and female.[71] Both male and female parents and guardians had difficulties in communicating with Deaf children. However, a positive relationship was established between males and females when they were asked about their willingness to learn SL, with females being more willing than males. Closer relations such as mother, sisters and brothers were more willing to learn SL than distant relations such as cousins and other relations even though the relationship is medium. The challenges of communication in a home have serious repercussions on the overall development of Deaf children. The fact that no differences were observed between male and female may mean that both sexes qualify for outreach services. This study revealed that families of deaf children lack SL communication skills and are therefore limited in communicating with their children who have hearing impairment. Those that were able to communicate still did so, but with difficulties. The strategies parents and guardians used to communicate with their Deaf children such as pointing, writing on the ground and use of a piece of paper were limiting compared to if they learned SL. Early childhood deafness presents unique and long term challenges which include communication to parents.[72]

The study revealed that parents understand the impact of lack of SL on the general development of their Deaf children. They were able to explain the impact on the emotional development and academic performance. For instance, from the results, parents and guardians felt frustrated when there was a communication barrier with their children. Thus, while Deaf children are affected emotionally by the lack of communication skills of their parents and guardians, the lack of required skills in turn affected the way parents and guardians reacted to the impairment. However, the parents' and guardians' understanding is a positive sign that can help service providers initiate interventions. In this study, parents and guardians seemed to be building up negative perceptions, that Deaf children were generally short tempered. This study revealed that parents reacted with frustration when they encountered communication barriers with their Deaf children. This finding is similar to other studies that report parental frustration when they face communication barriers. For instance, Wood, in a study of the impact of a hearing impairment on family life reports that some parents reported frustration with communication differences and perceived a negative impact of hearing impairment on interaction.[73] Family members find it difficult to engage in a conversation

70 Johnson (n 28).
71 Featherstone (n 46).
72 Quittner et al (n 49).
73 C Wood *Impact of deafness on family life* (2004).

with a Deaf child. This failure restricts conversation of issues affecting the family in which a Deaf child is a member.

Frustration resulting from lack of communication also affects the children themselves in that they would struggle to communicate their needs to parents. This study established frustrations on the part of parents who also reported that their children also became frustrated when there was a communication barrier. This is consistent with literature which asserts that children who are not able to communicate their needs or cannot understand instructions from parents are likely to exhibit frustration and parents end up perceiving such children as non-compliant.[74] Similar to this study, frustrations between children and family compromise a health microsystem in which a child is expected to grow in love and care. It does not help the child developing within a family to be negatively perceives as a trouble maker or a source of trouble because of the impairment the child has. A negative microsystem negatively impacts the child's development. It is not correct to think that all Deaf children are short tempered when they equally have different personality dispositions. In many other cases, the facial expressions deaf children show is likely to be misunderstood as temperamental or as negative reaction to what other family members say. Persons with hearing impairment generally use facial and gestural expressions to drive their point home. If such nature of communication is misunderstood as being temperamental, the children would be deterred from communicating their feelings. This can lead to increased stress and anxiety in Deaf children. The microsystem (family level) should be the first friendly and supportive environment for the child's optimal development.

However, it must be noted that families in the microsystem level also need support from the other levels such as the mesosystem, the exosystem and the macrosystem, levels that Brofenbrenner propounded as crucial to providing developmental support to the child. For instance, parents need education on the basic needs of Deaf children. This nature of support can be provided by schools and other professionals in the field of audiology. National policies, which are a feature of the macrosystem level, need to be seen to not only exist but to be implemented. Parents need various types of support which include counseling, skills, monetary and expert help trickling from the macro level and helping them to be more positive about nurturing Deaf children. From the focus of this study, the key argument is the need to empower parents with SL skills in order to enable good communication between parents and Deaf children. The lack of SL prohibits fluent engagement in discussions and interaction with other people. Quality of communication is an important contributor to the

74 TM Gallagher *Interrelationships among children's language, behavior, and emotional problems: Topics in Language Disorders* (1999).

child's behavioural problems.[75] A study of depression and Deaf adolescents by Rostami, Bahmani, Bakhtyari and Movallali reported mild levels of depressive symptoms being more prevalent among Deaf students.[76] It has further been argued that communication difficulties among the Deaf increase symptoms of depression and this is related to developmental delays associated with early communication deprivation.[77] Communication barriers and low ability to express demands and needs can lead to giving up interest in activities, which places one at risk of mental health problems such as depression.[78] Further research shows that children from families with poor communication are likely to show withdrawal behaviours and aggressive or impulsive actions.[79] On the contrary, a study on social interactions between Deaf and hearing people revealed that Deaf people were less aggressive than hearing people and the study results did not support the hypothesis that hearing people's responses would reflect negative attitudes and beliefs about Deaf people.[80] Holding negative beliefs that Deaf people are short tempered or highly temperamental is too generalising and as such can lead to negative stereotyping. Negative stereotyping has a detrimental impact on positive self-image.[81]

Optimal child development may not be fully achieved in the absence of effective interaction and communication within and outside the family.[82] Children, whether they have disabilities or not need a sense of belonging, love and care which language and effective communication offers. Where a barrier exists in communication, the child's expectations may not be met and that creates incongruence with emotional development expectations. The inability to use SL by parents does not only hinder emotional and social development, but may also affect academic performance as certain scholars such as Babudoh and the Ministry of General Education in Zambia have alluded to.[83] Research by Babudoh has shown that dropout rate among Deaf children is mainly related to parents' lack of SL skills.[84] Parents are supposed to be active participants in helping children with school work. However, with language limitations, they are at a disadvantage in helping their children in homework and reading

75 PL Runcan, C Constantineanu &BD Popa 'The role of communication in the parent-child interaction' (2012) 46 *Procedia - Social and Behavioral Sciences* 904.
76 M Rostami et al 'Depression and deaf adolescents: A review' (2014) 12 *Iranian Rehabilitation Journal* 43.
77 As above.
78 Spencer, Erting & Marscharck (n 24).
79 As above.
80 Hankins (n 50).
81 KK Muzata 'Terminological abuse versus inclusion: An analysis of selected terms used to describe persons with disabilities in Luvale' (2019) 3 *Journal of Lexicography and Terminology* 1.
82 UNICEF *Communicating with children: Principles and practices to nature, inspire, excite, educate and heal* (2011) https://www.unicef.org/cwc/files/CwC_Final_Nov-2011(1).pdf (accessed 24 October 2020).
83 Ministry of Education (n 19).
84 Babudoh (n 44).

programmes, among other academic tasks that require parental help or guidance.

The results of this study further question the realisation of inclusive education in Zambia. The child's rights to belong to the family become so limited that the child may feel he or she is not loved and cared for within the family. In the debate to embrace the concept of inclusive education, full inclusion is only possible when all support systems for child development and education are put in place. As it is now, Deaf children don't seem to benefit much from the practice of inclusive education because they are excluded right from their homes. Overly, if inclusive education is to be realised, families should be involved in programmes that help them to be part of their children's education. Article 7(3) of the CRPD emphasises that parties that are signatories to the Convention should ensure that children with disabilities are accorded their right to freely express themselves in the best interests of the child and ensure equality with other children to be able to express themselves on matters affecting them.[85] However, as it is, the results of this study show that children who are Deaf find it difficult to exercise their right. Further, their families are also incapacitated in the ability to communicate with their own children. It's not the child's fault that they cannot hear and speak and therefore efforts need to be made to ensure that children are able to communicate their needs and interact with their families, peers and teachers if the right to inclusive education is to be realised.

One of the ways to ensure that the right of children who are Deaf to belong to their family is realised is to empower parents with communication abilities in SL. This study reveals that parents' zeal to effectively communicate with Deaf children was hindered by lack of SL skills. The lack of communication abilities can be a barrier to the realisation of inclusive education and an inclusive society in general. We cannot boast about practicing inclusive education in the absence of empowering parents who are key stakeholders in the education and development of their children. Inclusive education in any case should start from the family, the place where the child develops before he or she goes into the wider community and eventually school. While article 24 of the CRPD guides parties to provide access to inclusive and lifelong learning from primary to tertiary level, it further emphasises that parties should facilitate modes of communication, provide reasonable accommodation and training of professionals to teach persons with disabilities effectively.[86] The inclusive agenda for persons with disabilities and especially persons with hearing impairment cannot be easily realised when some key

85 United Nations Convention on the Rights of Persons with Disabilities (2006) https://www.un.org/disabilities/documents/convention/convention_accessible_pdf.pdf (accessed 24 October 2020).

86 Arts 7 & 24, CRPD.

stakeholders such as parents are not empowered to participate in the education of their children.

9 Conclusion and recommendations

This study interrogated the participation of parents and guardians in the education and general development of their children who are Deaf. The results showed that parents and guardians did not participate fully in the education and general development of their Deaf children because of limitations in SL. Parents faced challenges in communicating with their Deaf children because they did not know SL. No significant differences were observed between male and female parents and guardians in relation to knowing SL, thereby disapproving the hypothesis that female parents and guardians communicated with Deaf children in SL better than their male counterparts. Further, the results showed that the closer the relationship with the deaf child, the higher the willingness to learn SL, showing that parents and closer siblings were more willing to learn SL than guardians. However, the willingness was inhibited by lack of support from experts to teach them SL so that they communicate well with their children.

There is no doubt that a lack of communication can affect early childhood development and perhaps the rest of a child's life. This study therefore illuminates the need to empower parents of deaf children with SL skills to enable them to participate actively and effectively in the education and development of their children. Although, there is a dearth of studies on the relationship between parents' knowledge of SL and academic performance as well as general development, literature appears to point to this fact. This study however, opens gaps for further research in the area of parenting children who are Deaf in Zambia. Participation in the education of their children can best be facilitated when parents are supported to learn SL. In Zambia, just like it may be in other third world countries, SL seems to have been neglected.[87]

The situation may not have changed much to date since current literature shows that teachers in schools still face challenges in teaching learners with hearing impairment due to limitations in SL.[88] Although attempts have been made to develop Zambian SL,[89] teachers in schools still struggle with limited SL vocabulary.[90] If such challenges exist among

87 VM Chanda 'Lexicography and Sign Language engineering: The Zambian experience' (1997) 7 *Lexikos* 192 http://lexikos.journals.ac.za (accessed 10 December 2020).

88 M Mulonda 'A situational analysis on the use of Sign Language in the education of the deaf in Zambia: A case of Magwero and St Joseph schools for the deaf' Unpublished Master's thesis, University of Zambia, 2013.

89 Chanda (n 87).

90 Mulonda (n 88).

teachers that are expected to teach learners who are Deaf, the situation is most likely to be worse with parents because they are not exposed to SL. Parental participation in the education of their children can be inhibited by a language barrier. Based on the results of this study, the Ministry of General Education in Zambia through schools should develop a deliberate policy to provide SL lessons to parents of Deaf children. This is possible through home visit SL lessons at agreed times or by organising evening classes. This kind of initiative means using the already available specialised human resources in schools (specialised teachers). Another strategy would be to identify parents with Deaf children and invite them to attend SL classes at schools. SL videos or CDs should be developed and distributed to parents to be able to learn SL on home television. The use of videos and social platforms to learn SL can also be used in the Zambian context if parents are given support to meet internet costs. Non-Governmental Organisations, the church and other disability interested groups can help to train families of Deaf children in SL. By providing support to parents through SL lessons, the realisation of the inclusion would be achieved. Further, the attainment of the Sustainable Development Goal (SDG) number 4 on inclusiveness and lifelong learning by 2030 may be realised as Deaf children will get more involved in education.