Unearthing Support Strategies to Improved Access to Health Services for Learners with Hearing Impairment, Musakanya School in Mpika District, Zambia

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Abstract: **This study focused on unearthing existing support strategies to improve access to Health Services for Learners with Hearing Impairments (LwHI) in Mpika district of Zambia. A qualitative methodology driven by Hermeneutics Phenomenology research design was applied. In addition, a purposive sampling technique was used to enlist Ten LwHI to participate in this study. Participants volunteered to voice their lived experiences and clusters of themes emerged thereafter. Emergent from the lived experiences of LwHI was to explore supported strategies in use to improve access to health services for learners with hearing impairment or deaf people that represent their felt worlds while at Musakanya combined school. The findings of the study revealed some strategies in use to improve access to health services for LwHI or deaf people such as sensitization of health workers, involvement of LwHI in decision making, licensed professional interpreters, mandatory sign language training for health workers, use of assistive technology devices, extra time for medical consultation and universal sign language dictionary. Based on the findings of the current study are eight recommendations among which include: inclusive policy, active involvement, communication, mandatory training of sign language to health workers, assistive technology, employ specialist interpreters, separate counter for hearing impaired and improve on health education.**

Key Words**: Lived Experiences, Hearing Impairment, Health Services, Musakanya School, Zambia**

I. CONTEXT

This paper is an excerpt from the principal researcher's Master of Special Education dissertation. The Master's programme was offered by the University of Zambia (UNZA) and has been running since 2020 (Manchishi, Simui, Ndhlovu & Thompson, 2020). The University of Zambia is a public university with a history of more than 50 years (Mundende, Simui, Chishiba, Mwewa & Namangala, 2016). The available research on access to health services by learners with hearing impairments has shown that a large number of learners with hearing impairment health services are unmet due to several factors (Mwanangombe, Mundende, Muzata, Muleya, Kanyamuna & Simui, 2020). This affects the learner's academic performance negative due to absence from school at Musakanya combined school.

The study used the Hermeneutic approach and the researchers accepted the difficulty of bracketing, as advanced through the Transcendental Phenomenology of Edmund Husserl. Simui (2018) commented that phenomenology focuses on human experience for it explores the individual's lived experiences search for meanings. This approach is oriented to the description and interpretation of the fundamental structures of the lived experience, and the recognition of the meaning of the pedagogical value of this experience in pedagogy, psychology and sociology according to the experience collected. It aims to change the lived experience into a textual expression of its importance, in such a way that the text's effect represents a reviving reflection and a reflexive appropriation of something significant: in which the reader comes to life with strength in its own lived experience (Fuster, 2019). Therefore, this study attempts to unveil the world as experienced by the LwHI through their lifeworld stories.

Despite Zambia being a signatory to various policies such as the Convention on the Rights of Persons with Disabilities (CRPD) Act 2012 and others with the view of promoting their full participation and accessibility in the society, little has been done in the health sector as a result Hearing Impaired learners are still struggling to access health services on an equal basis with non-HI learners because health workers up today lacks sign language skill and also qualified interpreters are not employed to link medical workers with HI learners. However, this research aimed at exploring lived experiences of learners with hearing impairment when accessing health services. The purpose of the study was to explore the lived experiences of learners with hearing impairment when accessing health services. The specific objective that guided the study was, 'to explore support strategies in use to improve access to health services for learners with hearing impairment.

Theoretical Framework

The current study made use of a triad of theories to effectively explore the lived experiences of learners with Hearing Impairment as follow:

Social Inclusion Theoretical Model

The social inclusion model was developed to challenge the discrimination that minority groups faced in society. According to Bigby and Frawley (2010) and Eliadou, Lo, Servio and Simui, (2007), social inclusion means enabling people with disabilities to do those ordinary things, make use of mainstream services such as health services and be fully included in the local community. For learners with H. I to experience inclusion, the health workers should accommodate them and be educated in sign language so that their clients could receive and access better health services (Schulze, 2009).

Human Rights Theoretical Model

Inclusion as a human right simply means that all rights are guaranteed to everyone, without distinction, exclusion or restriction based on disability or race, sex, language, religion, political or other opinions, national or social origin, property, birth, age, or any other status (HRCZ (2010 & Schulze, 2009). People with disabilities in Zambia have continued to experience human rights violations despite the country's ratification of the Convention of the Rights of People with Disabilities and subsequent enactment of the Persons with Disability Act in 2012.

Phenomenology Model

The phenomenology model is based on the study of life experiences, regarding an event, from the subject's perspective. Simui (2018) observes that phenomenology focuses on human experience for it explores the individual's lived experiences search for meanings. It aims to change the lived experience into a textual expression of its importance, in such a way that the text's effect represents a reviving reflection and a reflexive appropriation of something significant: in which the reader comes to life with strength in its own lived experience (Fuster, 2019).

II. LITERATURE REVIEW

Supported Strategies in use to improved Access to Health Services for LwHI

BID Services (2015) surveyed barriers to healthcare services experienced by deaf, deafened & hard of hearing people in Durham. It involved 121 participants who were deaf, deaf-blind or hard of hearing and focused on understanding whether Deaf, Deaf-blind & Hard of Hearing People in Durham faced inequalities and barriers when accessing healthcare services. The findings of the study found there are many ways in which our healthcare services could improve inequality and accessibility to healthcare services for deaf, deaf-blind and hard of hearing people. This includes asking deaf patients how they would like to communicate, offering online appointments and text or email contact with the surgery, booking longer appointments, never expecting family members to interpret for a patient, and making deaf awareness training mandatory for all front-line staff.

Smeijers and Pfau (2009) researched on Deaf technology and the Deaf were active participants. The findings showed that deaf people suggested that health workers should set up a screen or other visible method of notifying patients, rather than calling their name, set up a simple system for booking interpreters and train staff to use this system, set up the 'Interpreter Now' online service and train staff to use the service in preparation for when a face-to-face interpreter is unavailable and never expect family members or unqualified staff to interpret for a patient with a hearing loss.

Cormier et.al (2013) conducted a study on the preferred communication mode of DHH people in clinical settings in the United Kingdom, Florida, New Zealand and the United States. The findings of the study were that half of the deaf population preferred to communicate via sign language interpreters, while others preferred to only have a consultation directly with signing health professionals and the least group agreed to accept communication with doctors using speech, as long as they are aware of deaf issues.

Barnett (2011) reported that communication technology is widely used in developed and developing countries to aid HI learners to access health services. In recent years, deaf people have benefited from the prospects of modern information technology when accessing services. Minicamps and text-phones are now widely used, and the availability of web facilities in various places is not only helpful when accessing health services, but also provide more autonomy for deaf individuals familiar with these techniques. Technology that allows texting communication with regular phones is another recent development. It enables deaf people to make initial contact by telephone (through voiced text messages) and continue any conversation by Short Message Services (SMS). Many other for-profit technical assistance services are offered to deaf people who can afford them. Nevertheless, in many cases, deaf people report that it is still not possible to use email to reach their GPs for making appointments or asking short questions, as many services are just available via telephone.

World Report on Disability, (2016) commended telemedicine as development on board, which recently has provoked broad interest. It can provide wide-reaching access to resource centres, offering web communication with signing experts. Several recent studies discuss the application of telemedicine in different medical fields. Apart from telemedicine, there is the Auslan Medical Sign bank which is another innovative approach to improving health outcomes for deaf people by fostering an "effective, accepted, and shared sign language vocabulary for the discussion of medical and mental health issues by deaf clients and health professionals in interactions mediated by Auslan interpreters".

Swanson (2007) in his study on new mental health services for deaf patients in Canada recommended that health care providers should facilitate bonds with patients to ensure user access and need to allow extended appointments for hearing impaired patients. The implementation of transcultural

methods to narrow the cultural gaps between hearing and non-hearing participants in the health sector is suggested to recognise individual communication limits and to deal effectively with the cultural and linguistic challenges which often occur when people with different backgrounds or perspectives come together, it is vital that health care professionals acquire more education on deaf culture and on how to communicate with the deaf.

In addition, initiating health education among the deaf studies highlight the value of health education programs specifically targeted at the deaf and health education material for deaf audiences. Video-based intervention is supposed to be an effective educational tool for reaching the deaf community with cancer. To promote access to health care DHH youth in France have successfully been provided with internet training workshops. In South Africa, many disability organizations recognise the importance of accessible HIV education, but people with disabilities are nonetheless still largely excluded from HIV prevention education as well as from access to general health care for testing.

WHO (2011) reported that it was cardinal to have primary health care centres for deaf people. The wide-reaching implementation of good and available primary care is an important public health approach in various countries. Especially in low and middle-income countries efforts have been made to integrate the provision of special health care into general community health care services, and a high-quality research paper about health and people with disabilities has recently highlighted work toward optimum strategies to integrate their needs into primary healthcare systems.

Woodcock (2007) revealed that in Austria, Health Centres for the deaf are attached to general hospitals and provide complete access to health care for deaf individuals by competent staff that are familiar with deaf culture and able to communicate in sign language and or other modes according to the need of their patients on a one to one. For many deaf people in Austria, these Health Centres have become their primary care facility, while others from far away come only for regular preventive health check-ups. These preventative health check-ups have proven to be important tools for individual health education specific health education programs are also provided for special target groups like deaf people with diabetes.

Regular health education days convey relevant information to the deaf community as a whole. Mental health care and social work are also offered within the framework of the Health Centre for the deaf, following the concept which is established in Linz, Vienna, Graz, and Salzburg. In Linz, special programs are provided for elderly deaf people and deaf people with special needs as well as for parents of deaf children. As the services are connected to general hospitals the patients can be easily referred to the complete range of facilities, accompanied by signing staff when necessary. In France, dedicated ambulatory services for primary healthcare of the deaf people are provided that are well accepted and show benefits for the deaf community

Knowledge Gap

Emerging from the literature reviewed above, research studies on lived experiences of learners with hearing impairment when accessing health services appear to be largely focusing on all deaf people and hard of hearing and not on children. Furthermore, the bulk of research works on lived experiences of learners with hearing impairment when accessing health services are generated by developed countries while the developing countries are relatively fewer in number. Thus, in Zambia, there is no specific research on the live experiences of learners with hearing impairment when accessing health services to guide policy formulation, implementation and evaluation. With these identified knowledge gaps, the reviewed literature forms a good foundation for the study at hand.

III. METHODOLOGY

Research design

A Hermeneutics Phenomenology design was applied to study the lived experiences of LwHI. A phenomenological approach is a theoretical point of view that advocates the study of direct experience taken at face value; and one which sees behaviour as determined by the phenomena of experience rather than by external, objective and physically described reality. The design entails the collection and use of data systematically from a given population to describe certain characteristics of the population (Creswell, 2005). Simui (2019) cited van Manen's four evaluative criteria on lived experiences which consist of: (i) lived space – Spatiality; (ii) lived body – Corporeality; (iii) lived time – Temporality; (iv) lived human relation – Relationality. Simui (2018) noted that four evaluative criteria such as Space, Body, Time and Relations should be in place for lived experience to take place.

Sample size

The nature of the sample, and who is included in depend on what the research is trying to deduce (Kothari, 2004). Musakanya unit for the HI sample selection was on the basis of having a good number of learners with hearing impairment. According to Neuman (2003), in purposive sampling the researcher is empowered with the right to select cases with a specific purpose in mind, namely to get information on the basis of their informativeness. To this effect, the participants engaged consisted ten (10) LwHI as active participants by gender 5 females and 5 males.

Below is a table summarising profiles of the ten participants whose real names are replaced with pseudonyms for ethical reasons. Equally, participants' descriptors, such as grade, age and sex were purposively included for the purpose of better understanding of the phenomenon at hand as well as possible replication of the study by other researchers.

Table 1. Participants' profiles (names of participants are pseudonyms)

NAME (PSEUDONYM)	SEX	AGE	GRADE	DISABILITY
1. Con	m	12	7	Hearing Impairment
2. Rudd	m	13	8	Hearing Impairment
3. Dust	m	15	8	Hearing Impairment
4. Jan	m	17	9	Hearing Impairment
5. Zan	m	17	9	Hearing Impairment
6. Nad	F	16	9	Hearing Impairment
7. Fei	F	16	9	Hearing Impairment
8. Nash	F	15	8	Hearing Impairment
9. Jie	F	17	8	Hearing Impairment
10. Jui	F	18	9	Hearing Impairment

Sampling procedure

Purposive sampling procedure was used to select HI learners. Researcher used homogenous sampling to choose participants who in their opinion would be thought to be relevant to the research topic (Cohen and Manwri, 2000). The criterion for selection of a school was based on the availability of HI learners in Mpika District while the selection of learners was done at Musakanya combined school regardless of age, sex and social economic status. The research focused on the HI learners from Grade 7-9.

Trustworthiness and Ethical Considerations

The researchers sought ethical clearance from the University of Zambia. Moreover, all the information that was collected was strictly treated as confidential and were not used for any purposes other than the intended one. Additionally, consent was sought from the respondents and the researcher ensured that the subject participants who voluntarily participated in this study and maintain an open and honest approach to the study. The consent form was given and signed by the respondents. The names of the participants were protected and kept confidential and if the participant wished to withdraw, they were free to do so.

IV. FINDINGS AND DISCUSSION

Strategies to improve access to health services for LwHI

The participants both girls and boys with hearing impairment were asked to comment on the strategies in use to improve access to health services for learners with hearing impairment or deaf people. They reported that some hospitals had not put in place working programmes to help LwHI to access health services due to poor policy direction and inadequate funds.

Emergent Themes

Key among the emergent themes included sensitization of health workers on how to attend to LwHI, involvement of LwHI in decision making, employing licensed interpreters, call for mandatory Sign Language training for health workers, use of Assistive Technology Services and provision of extra time for medical consultation as well as advocate for inclusive policy at health facilities so that LwHI can experience full access to health services. See figure 1 below for a pictorial representation of emergent themes.

Figure 1: Emergent Themes

Sensitization of health workers how to attend to and treat LwHI

Sensitization of health workers about deaf culture and the rights is key to improving access to better health services for LwHI. *Jan* observed that most health workers have little knowledge about the deaf culture in general which is why they seem not to care that they hinder the deaf right to health care. *Jan* echoed in his report that; '*… health workers should receive us with respect like they do with others. I think if they are sensitised about deaf culture, they can improve and better our services.'*

Jan was not the only one who noted the need to sensitise health workers. Equally, *Jie* recounted the need to sensitise health workers after being exposed to the hospital environment as stated below.

> *I observed that some health workers are good but they have very little knowledge about us the deaf. I feel health workers should be reminded all the time during the briefing about the rights of persons with disabilities and the deaf culture [human rights model] (Jie, 2021).*

Nash with her lived experience exposed that health workers should be sensitised about challenges the deaf face especially with communication, the key to all aspects of accessibility to health services. Nash recommended that *'health workers should strive to know more about us with hearing impairment and our culture for effective deliverance of quality health services.'*

Sensitisation of health workers about deaf culture and the rights is key to improving access to better health services for LwHI. *Jan* observed that most health workers have little knowledge about the deaf culture in general which is why they seem not to care that they hinder the deaf right to health care [*Human rights model*]. *Jan* echoed that health workers

should receive the deaf with respect like they do with others. He thought that once health workers are sensitised about deaf culture, they can improve and better health services.

Equally, Jie commended that some health workers are good but they have very little knowledge about the deaf. He felt that health workers should be reminded all the time during the briefing about the rights of persons with disabilities [*Human rights model*] and the deaf culture. *Nash* with her lived experience exposed that health workers should be sensitised about challenges the deaf face especially with communication which is key to all aspects of accessibility to health services. Harmer (1999) stressed that cultural awareness training about deaf culture and sign language for health professionals is key to improved health services and delivery to deaf people. Woodcock (2007) suggested that Health Centres for the deaf should be attached to general hospitals and provide complete access to health care for deaf individuals by competent staff that are familiar with deaf culture and able to communicate in sign language and or other modes according to the need of their patients on a one to one. According to Woodcock (2007), health workers were sensitised thoroughly about the deaf culture and this helped the doctors, nurses and other workers to change and respect the deaf whenever they want to access health services. Health maintenance organisations in California (United States) have improved efforts to promote and evaluate sign language interpreter services for the deaf community (Cormier et.al, 2013).

Mweri (2018) stressed out that to improve access to health care for people who are deaf, deaf awareness training should be implemented. All health care professionals should be sensitised about deafness, deaf culture and sign language. This will not only make them aware of the communication challenges people who are deaf face in accessing services provided by them but also they will be able to understand that these challenges are mostly communication-based and that they are putting people who are deaf at risk. This awareness is a step in addressing the issues of access. There is a need in doing this awareness to have clear guidelines in medical institutions of how staff are expected to handle a person who is deaf. Once the first tier medical professional realises he/she is dealing with a person who is deaf, there must be a clearly laid down procedure that is to be followed that may include taking the patient directly to a medical professional who knows KSL and can handle the situation or a qualified interpreter is sought to provide the services.

The Convention on the Rights of Persons with Disabilities strongly supports protection for persons with disabilities concerning health and rehabilitation. It points out that persons with disabilities have the right to the highest attainable standard of health and that State parties must recognise that rights without discrimination based on disability (United Nations, 2014). The State parties, in this case, are the health workers who should be aware of the right of the deaf as they provide health services to them.

Involvement of LwHI in Decision Making

Involvement of LwHI in decision making is cardinal to make their voices heard. Rudd observed that the involvement of LwHI would help to let health workers know how the deaf would like to be treated and communicated to once at the health facility. Rudd appreciated how he was treated when he was at a certain hospital. Below is the conversation between Rudd and the health worker.

> *(Doctor) hello, how are you? (Rudd) I'm not ok. (Doctor) How would like to be communicated to? I don't know much signing language. I just know how to greet. He wrote on a piece of paper.*
>
> *(Rudd) I'm comfortable with writing. (Doctor) what is the problem? (Rudd) I'm feeling bad in my heart. I'm feeling acute pain. (Doctor) Ok, I see. You will be fine soon after taking these drugs (Rudd, 2021).*

Rudd wished all health workers were so open and soft to their deaf clients so they could know if such a client is literate or not and which mode of communication would be accommodating to a deaf client.

Like *Rudd*, *Nad* also seconded the issue of involving LwHI on how their health services could be met. *Nad* advised that she prefer to read the lips and below is what she said,

> *... if health workers could speak while looking at me, I can lip-read. I find it difficult to lip-read when a doctor or nurse is facing away from me if a nurse has applied lipstick or a make nurse is having beards. They should maintain their lips clear for easy observation. It's easy for me to also read facial appearances whether happy, sad, bad, good, doubting (Nad, 2021).*

Jie like *Nad*, also felt that the health facilities should provide two screening points for the deaf and non-deaf patients. This would improve efficiency too in the delivery and accessibility of health services to LwHI. She observed that:

> *I feel the hospital should come up with two screening offices for the Deaf and non-deaf so that the best services could be offered depending on the disability. It irritated me when I was in the line then the nurse was calling names and I being deaf that was an insult. How could I hear when I don't? Better they came up with two screening rooms for disabilities and non-disability (Jie, 2021).*

The call to involve LwHI in decision making is cardinal to make their voices heard. *Rudd* stressed out that the involvement of LwHI would help to let health workers know how the deaf would like to be treated and communicated to once at the health facility. *Rudd* appreciated how he was treated when he was at a certain hospital. He smiled when he was explaining that he was welcomed very well by the doctor he found and at least the doctor was able to greet him in sign language though he did not know much of sign language. He communicated with the doctor through writing and he was satisfied and happy with the interaction he had with the doctor [relationality]. *Rudd* strongly wished all health workers were

so open and soft to their deaf clients so they could know if such a client is literate or not and which mode of communication would be accommodating to a deaf client.

Like *Rudd*, *Nad* also pointed out that if health workers could speak while looking at the deaf, the deaf could lip-read. He found it difficult to lip-read when a doctor or nurse was facing away from him if a nurse has applied lipstick or a male nurse is having beards. They should maintain their lips clear for easy observation. It is easy for him to also read facial appearances whether happy, sad, bad, good and doubting. In addition, *Nad*, also felt that the health facilities should provide two screening points for the deaf and non-deaf patients. This would improve efficiency too in the delivery and accessibility of health services to LwHI. It is clear from the above, that solutions to the challenges encountered in the process of accessing health services lie with the excluded persons. If only they can be engaged and consulted in the decision-making process [*social inclusive model*], institutions are bound to make a breakthrough to a multitude of equity challenges they face.

Gates (2007) pointed out that people should not be actors only but subjects and part and parcel of the mainstream society. Understanding disability from such a perspective forms the core of social inclusion. This tells that involving persons with hearing impairments in decision making helps the hospital administration in coming up with inclusive decisions. Gynnerstedt (2004) stressed that access is better understood as one of the processes of inclusion. Indeed, all levels of society need to be involved so that access to services for those with disabilities such as hearing impairment can be seen as a human rights issue, and just as human rights are not relegated to one department for oversight, neither should disability issues be (Gates, 2007).

Bigby and Frawley (2010) noted that health workers should make health services inclusive to learners with hearing impairment as such will make them healthy and feel accepted in society. Inclusive health services can only be achieved once deaf patients are asked how they would like to be communicated to (BID Services, 2015).

Licensed interpreters

For the outstanding delivery of health services to LwHI calls for licensed professional interpreters. Adam commended the issue of licenced interpreter stating that '*on his personal level, an interpreter plays a key role in the lives of us the deaf persons*.' *Jie* like *Adam* commended that:

an interpreter becomes the liberating voice of the deaf and the linkage to the outside world as he/she enables and facilitates communication, moreover, making the world of the Deaf a little easier and more pleasant. Interpreters in the provision of better health services stand in between LwHI and health workers. Their link is very important to save the lives of LwHI by making doctors come up with proper diagnoses (Jie, 2021).

Like *Jie*, many respondents were in support of this strategy but *Dust* added further that it would be more advanced to have health workers learn sign language to scrap off the interpreters so that the needs of the deaf people are met fully with high levels of trust. *Dust* appreciates the experience he had one time at the health facility as stated below.

... while at the health facility, I met a medical doctor who provided my services in sign language and I felt accommodated, accepted and loved because I explained my problems clearly and with trust. I enjoyed not being in the company of an interpreter (Dust, 2021).

Like Jie, Rudd commended the health facilities to uphold and provide LwHI with licenced professional interpreters who can interpret their health matters. *Rudd* echoed*, 'I believe the use of professional language interpreters is correlated with improved clinical care.*

Nash was also for the idea that the use of licensed professional interpreters always brings in better services which makes health matters accessible.

As a deaf patient, I usually expect positive lived experiences in health care encounters when a medically experienced professional sign language interpreter is present than an unprofessional family member to interpret for me (Nash,2021).

Con further supported that he would be the happiest if the licenced professional interpreters were employed to help the deaf access better health services. It is everyone's wish so that doctors could understand our true problems. For the outstanding delivery of health services to LwHI calls for licenced professional interpreters. *Adam* commended the issue of licenced interpreters due to the key role interpreters played in the lives of deaf people. *Jie* like *Adam* commended that an interpreter becomes the liberating voice of the deaf and the linkage to the outside world as he/she enables and facilitates communication by making the world of the deaf a little easier and more pleasant. Interpreters in the provision of better health services stand in between LwHI and health workers. Their link is very important to save the lives of LwHI by making doctors come up with a proper diagnosis.

Like *Jie*, many respondents were in support of this strategy but *Dust* added further that it would be more advanced to have health workers learn sign language to scrap off the interpreters so that the needs of the deaf people are met fully with high levels of trust. *Dust* appreciates that the experience he had with a doctor at the health facility (Spatiality) where he felt accommodated, accepted and loved [inclusive model] just because he accessed better health services in sign language. He explained his problem clearly with trust.

Smeijers and Pfau (2009) supported the idea of setting up a simple system for booking interpreters, set up the 'Interpreter Now' for online service incase face-to-face interpreter is unavailable and never expect family members or unqualified staff to interpret for a patient with a hearing loss. Cormier et.al (2013) revealed that most of the deaf people communicate via

sign language interpreters. Cormier et.al (2013) was in line with *Con* who stated that he would be the happiest if the licenced professional interpreters were employed to help the deaf access better health services. It is everyone's wish so that doctors could understand our true problems.

For patients with limited English proficiency, the use of professional language interpreters is correlated with improved access to better health services and deaf patients report positive experiences in health care encounters when medically experienced professional sign language interpreters are present (Cormier et.al, 2013). The emphasis here is on a qualified interpreter because they are bound by professional ethics and thus are bound to protect the privacy and confidentiality of the patient (Mweri, 2018). Interpreters should be familiar with medical terminology and medical context to effectively interpret in the healthcare setting (The Deaf Health Charity, 2013).

Sign Language Mandatory Training of Health Workers

The findings showed that LwHi would like sign language to be mandatory training to all health workers for efficiency, improved services and to uphold inclusive health facilities. Fei stated that though inclusion is enshrined in all ministries with so good a statement like leaving no one behind, she still felt that the deaf were still behind in terms of access to health services. Despite some health workers having the zeal to learn sign language, *Fei* thought that '*sign language be made inclusive to all health workers for effective access to health services by the deaf patients'*. Like Fei, Jan also said*, 'I want all health workers to learn my language so that I can explain my problems without a third party. I don't like and trust interpreters.*

In the same vein, *Jui* stated as follows;

Training of health workers in my language (sign language) would make the deaf community very happy because all sort of communication problems would be solved and we would receive better health services in all health facilities (Jui, 2021).

Jui further said that the health workers should use a patient-centred approach to health care and be cognisant of patients' autonomy to encourage the healthcare provider to gain an understanding of the disease as well as the patients' experience of the illness.

Despite some health workers having the zeal to learn sign language, *Fei* thought that sign language should be made inclusive to all health workers for effective access to health services by deaf patients [inclusive model]. *Jan* also claimed that he wanted all health workers to learn his language so that he could explain his problems without a third party as he did not like and trust interpreters.

In the same vein, *Jui* commended the training of health workers in sign language for it would make the deaf community very happy because all sorts of communication problems would be solved and they would receive better health services in all health facilities. She further encouraged health workers to use a patient-centred approach [*relationality*] to health care and be cognisant of patients' autonomy to encourage the healthcare provider to gain an understanding of the disease as well as the patients' experience of the illness (BID Services, 2015).

In line with the above discussion, the deaf suggested that teaching health workers sign language and making deaf awareness training mandatory for all front-line staff would greatly improve health services for the deaf and the hard of hearing (Chisupa, 2007) and (Smeijers & Pfau, 2009). Barnett (2011) argued that in many cases, deaf people report that it is still not possible to use email to reach their GPs for making appointments or asking short questions, as many services are just available via telephone hence the need for mandatory training of health workers because they are always available to offer better services once trained in handling the deaf as suggested by *Jan* above.

Use of Assistive Technology Services

Assistive technology services which include installing large screens in health facilities, use of phone and computer as well as laptops for texting, email, WhatsApp, Facebook, video conferencing or zoom meeting are useful tools in communicating with health providers and ends up improving health services commended by *Con*. *Con's* statement about the use of technology when acquiring health services is stated, '*Some health facilities have installed screen or other visible methods of notifying us deaf patients rather than calling our name'. Jie* made it clear in her statement*, 'health facility should allow us the deaf make a future appointment, offer online booking for appointments through WhatsApp, email or other means.*

For us hearing-impaired learners, technology such as phones helps us communicate by texting with doctors or nurses about our health problems. It enables us the deaf people to make initial contact by telephone through voiced text messages and continue any conversation by SMS as we access health services (Jie,2021).

Adam equally echoed that the hearing impaired learners should be allowed to use technology such as phones to help them communicate by texting with doctors or nurses about their health problems. He confessed that phones enabled deaf people to make initial contact by telephone through voiced text messages as they access health services *(Spatiality).*

In support of *Con* and *Jie* assertions, Smeijers and Pfau (2009) commended that health workers should set up a screen or other visible method of notifying patients, rather than calling their name, set up a simple system for booking interpreters and train staff to use this system, set up the 'Interpreter Now' online service. Barnett (2011) and World Report on Disability (2016) recognised that communication technology is widely used in developed and developing countries to aid deaf learners to access health services. In recent years, deaf people have benefited from the prospects of modern information

technology when accessing services. Minicamps and text-phones are now widely used, and the availability of web facilities in various places is not only helpful when accessing health services, but also provide more autonomy for deaf individuals familiar with these techniques (Barnett, 2011). Technology that allows texting communication through WhatsApp, SMS, Email, Twitter and other Media with regular phones is another recent development. It enables deaf people to make initial contact by telephone (through voiced text messages) and continue any conversation by SMS. Many other for-profit technical assistance services are offered to deaf people who can afford them.

World Report on Disability, (2016) commended telemedicine as development on board, which recently has provoked broad interest. It can provide wide-reaching access to resource centres, offering web communication with signing experts. Several recent studies discuss the application of telemedicine in different medical fields which helps in uplifting.

Extra time for Medical Consultation

During medical consultation and diagnosis, *Nad* observed that LwHI consume a lot of time because it involves the deaf, interpreter and doctor and all should communicate to arrive at one thing. Due to this, below is what was said.

> *I spend time writing or communicating through an interpreter with the doctor which I believe is a long process. Sir, I would suggest that extra time for a medical consultation is granted to us the deaf (Nad, 2021).*

In addition, Dust also narrated that he struggled to explain things in sign language to make a doctor understand. '*I mean and for this, I would call for more time to be allocated to the deaf to access better health services*.'

Communicating with the deaf calls for attention and more time so that better health services could be delivered. During medical consultation and diagnosis, *Nad* observed that LwHI (Deaf) consume a lot of time because it involves the deaf, interpreter and doctor and all should communicate effectively to attend to the needs of a deaf client. *Nad* reported that she spent time writing or communicating through an interpreter with the doctor which she believed was a long process. He commended that the hospital where he went always gave him extra time for medical consultation for being deaf.

Medical consultation, description and diagnosis call for extra time due to communication challenges experienced by both parties. Due to limited time allocated to the deaf resulted in the deaf receiving poor services when they fell sick. Healthcare professionals need to obtain information and give advice and patients need to ask questions and share their concerns. However, when deaf people attend for consultation, they said they only understand some of the information communicated to them, resulting in a limited understanding of their medical condition due to the limited time given to them (Chisupa, 2007). *Dust* recounted how he struggled to explain things in sign language to make a doctor understand. Despite that, *Dust* stressed that he liked the way more time was allocated to him whenever he fell sick and he received good services.

Positive Attitudes

It is worthy to note that a positive attitude appears to influence other lived experiences such as sensitisation of health workers on how to attend to LwHI, involvement of LwHI in decision making, employing licenced interpreters, call for mandatory sign language training for health workers, use of Assistive Technology Services and provision of extra time for medical consultation as well as advocate for inclusive policy at health facilities. Positive attitudes received by LwHI from health workers and society is cardinal when accessing health services. On daily basis, LwHI go through several experiences just to acquire basic health services. An example below of *Jie* lived experience and how she worked with health workers to solve the problem.

> *When the time for the operation came for me on 23rd November 2015, the operation team at the hospital told me that they will operate on me next year on 3rd January 2016 due to the absence of a professional licenced interpreter. Fortunately, my teacher came to check on me so he was called and interpreted everything, we had to sign the forms and I was operated on successfully. Health workers showed an attitude of positivity (Jie,2021).*

For example, *Jui* had also his lived experiences on several occasions when accessing health services at health facilities. She explained that she was with three friends who were deaf but literate unfortunately she was not so fluent in writing and below is *Jui's* conversation with the doctor, as she negotiated to be attended to despite going late at the hospital:

> *[Doctor] '...we closed the hospital unless emergencies. How come you are coming this time?' I told him that there is no timetable for sickness. (Jui)'We bought food on our way home and suddenly we began feeling stomach pains so instead of going home we have decided to come here.' The doctor understood us but he told us individually to write on a paper how each one was feeling which I did though with difficulties the doctor read and gave us medicine (Jui,2021).*

It is worthy to note that a positive attitude appears to influence other lived experiences such as sensitisation of health workers on how to attend to LwHI, involvement of LwHI in decision making, employing licenced interpreters, call for mandatory sign language training for health workers, use of Assistive Technology Services and provision of extra time for medical consultation as well as advocate for inclusive policy at health facilities. Positive attitudes received by LwHI from health workers and society is cardinal when accessing health services. On daily basis, LwHI go through several experiences just to acquire basic health services.

It is cardinal to note that health workers positive attitude towards health services increases self-esteem, determination and makes LwHI access better health services. It is good

Gudlavalleti, et.al, (2014) noted that health workers can receive and treat deaf patients as reported by *Nash*. *Nash* recalled the time she collapsed that she only found the male nurse sitting next to him (relationality). He communicated to him in sign language though he did not know much this made him happy and safe.

Health workers have also embraced technology as a tool for communication with the deaf and this is cardinal and helpful. Media such as WhatsApp, SMS, online appointment and others are reported to be helpful (Foltz & Shank, 2019). It is important to note that the Ministry of Health has embarked on deaf awareness training to improve access to health care for people who are deaf. All health care professionals are sensitised about deafness, deaf culture and sign language. This has helped to positively change attitudes of health professionals toward the deaf and the deaf patients feel respected and accepted once in contact with health workers at the local, district and national levels. Orrie and Motsohi (2018) noted that health workers lacked communication skills in sign language but with the deaf awareness program on board, there is a shift in terms of attitudes towards deaf patients which is positive.

Inclusive Policy at Health Facilities

The greatest barriers to inclusion are caused by society, not by particular medical impairments. In this regard, the United Nations Educational, Scientific and Cultural Organization (UNESCO) applied the Social Model to focus on external factors and not biological factors as championed by the medical model, as cause for marginalisation and exclusion (UNESCO, 2017). Negative attitudes manifest through social discrimination, lack of awareness and traditional prejudices. However, with the deaf awareness programmes about deaf culture and sign language under the positive influence of UNCRPD, Disabilities Act, 2012 and other policies, health workers have embarked on improving access to health services for learners with hearing impairment or deaf people. For instance, Harmer (1999) stressed that cultural awareness training about deaf culture and sign language for health professionals is key to improved health services and delivery to deaf people.

Inclusive policy at health institutions can only be achieved once health workers improve the communication skills that is sign language. The deaf agreed that communicating with health workers using sign language motivate them because they feel to be part of the society practising inclusive health care. *Fei* also confirmed that today almost every institution is considering the plight of the deaf when disseminating information. Mostly used mode of communication with the deaf in hospitals is the use of interpreters which is better.

Another development in the inclusive world is the use of technology for communication. Foltz and Shank (2019) reported that new technology and services are being offered to help deaf patients make appointments such as having an interpreter call the doctor's office during a video call with the patient. Additionally, some health information is now available online in sign language. Interpreters can also be more easily available at short notice for example in an emergency situation through a video chat.

V. CONCLUSION

In conclusion, it is clear that LwHI are faced with the inaccessibility of health services. As a remedy to improved support strategies to improved access to Health Services for learners with Hearing Impairment at Musakanya School in Mpika District, Zambia various options exist. The support strategies include sensitisation of health workers, involvement of LwHI in decision making, employing licenced interpreters, call for mandatory sign language training for health workers, use of Assistive Technology Services and provision of extra time for medical consultation as well as advocating for inclusive policy at health facilities. It is clear that the provision of better health services to deaf learners' leads to good academic performance. Further, while access to healthcare is challenging for Hearing Impaired learners, the best solution is not 'one – size–fits all.' This calls for eclecticism in the provision of support strategies to ameliorate the lived experiences of learners with Hearing Impairments.

VI. RECOMMENDATIONS

Based on the findings of the current study, the following are the recommendations:

i. Health institutions should develop and implement an inclusive policy. It was observed above that policy guides practice of practitioners. However, the UNCRPD, Disability Article 2012 and other policies are only on paper and this is a reason the deaf patients fail to access better health services and find it difficult to participate in health issues. To this effect, the Ministry of Health should consider developing an inclusive health policy, which can be domesticated at the institutional level as well. The policy could provide a guide and support to LwHI.
ii. Health institutions should involve LwHI in the decision-making processes affecting their access to better health services. All health workers starting from the administration to the front liners are encouraged to actively involve the affected LwHI in the decision-making process through consultation. This is consistent with the slogans 'Nothing for us without us!' and 'Leaving no one behind.'
iii. There is a need to make mandatory training of sign language by conducting workshops on sign language to create awareness among the health workers and promote a positive attitude towards the deaf learners.
iv. Furthermore, providers should take cognisance of how to communicate with deaf people, that each person's needs may be different, realising that they need to use simple vocabulary when writing to a deaf person and be aware that medical terminologies are beyond the reach of many deaf people.
v. Ministry of Health needs to employ specialist interpreters in health institutions who can understand

diverse sign language as it is not universal. In addition, each consultation room should at least have sign language posters indicating basic sign language and through pointing at the poster the provider will then be able to pick up the essence of what the patient's complaint is in case an interpreter is not available.

vi. The installation of assistive technology in health institutions can be utilised to make deaf persons health care visits much less stressful. They recommend that electronic boards be placed in the waiting areas of clinics, hospitals and doctors' offices and instead of calling the person over the intercom they can simply flash the next person's name on the board so they can see when they are being called.

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