Journal of General Education and Humanities
Vol. 1, No. 3, August 2022, pp. 149~162, https://doi.org/10.58421/gehu.v1i3.35
ISSN 2963-7147

Natural Communication Abilities Among Children with Congenital Deafblindness in Multi-Linguistic Communities of Zambia

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Article Info

Keywords:

Children
Congenital Deafblindness
Parents
Natural Communication

ABSTRACT

Children with Deafblindness in Zambian communities face communication challenges. Communication forms the basis for human interaction, exchanging ideas and feelings, and facilitating social inclusiveness. This study, anchored on the theory of dialogism as the theoretical framework, sought to assess the natural communication abilities of children with congenital Deafblindness and further explore measures taken by caregivers/parents to enhance the communication abilities of the children. A qualitative case study was used as the research design. Snowball sampling technique was used to sample three (3) children with congenital Deafblindness aged three (3), eleven (11), and twelve (12) and three (3) parents and one (1) relative who participated in the study, making the total number of (7) seven participants. The participants were from Lusaka, Copperbelt, and Northwestern provinces of Zambia. The findings were that children with congenital Deafblindness could use natural signs to communicate their feelings of happiness, frustration, or discomfort, detect sounds, express mistreatment, and use imitations, tapping, and pointing signs. The study concluded that although children with congenital Deafblindness can communicate, parents 1 and 2 naturally and relative o In contrast, parent 3 was able to communicate with her child with congenital Deafblindness through the use of Hand overhand communication, the object of reference, body contact and hand tactile techniques. The study recommended the need to teach communication techniques to parents and caregivers of children with Deafblindness in order to improve the communication skills of children with Deafblindness.

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1. INTRODUCTION

Deaf blindness is a condition in which an individual has a combination of auditory and visual impairment [1], which can either be congenital or acquired. Congenital Deafblindness is present at birth and covers a spectrum of combinations of varying degrees of vision and hearing loss [2], whereas acquired Deafblindness may occur after an individual has acquired some form of language later in life [3], [4]. Studies on the communication of children with Deafblindness have shown that the deafblind child can use touch to communicate and interact with other people [5] and may perceive sign language tactically in monologue or conversation [6]. Research has also revealed that some signs children with deafblindness use develop naturally from their movements and interaction with the environment [2]. In contrast, other signs occur due to adaptations and enhancement of signs when children with Deafblindness interact with their families, caregivers, and teachers [7], [8]. Using natural signs and adaptations by individuals with Deafblindness has improved their understanding of the conceptual world and enhanced their communication and creativity [9]–[11]. This study was undertaken to assess the natural communication abilities of children with congenital Deafblindness and explored the measures taken by caregivers/parents to enhance communication with such children.

Statement of the problem

Despite studies showing that children with Deafblindness possess natural communication abilities, parents and caregivers of children with congenital Deafblindness in Zambia are unaware of how the children respond to environmental stimuli and communicate. The need to make parents and caregivers aware of the various natural responses to environmental stimuli by children with congenital Deafblindness necessitated this study.

Aim of the study

The study aimed to assess the natural communication abilities of children with congenital Deafblindness. The study further sought to explore the measures taken by caregivers/parents to enhance communication among children with congenital Deafblindness.

Research Objectives

The following objectives guided the study;

a) To assess the natural communication abilities of children with congenital Deafblindness.
b) To explore the measures taken by caregivers/parents to enhance communication among children with congenital Deafblindness.

Research Questions

a) What are the natural signs that children with congenital Deafblindness use to communicate?

b) What measures have caregivers/parents taken to enhance communication with children with congenital Deafblindness?

Limitations of the study

The anticipated duration of this study was affected by the Corona Virus Disease (COVID-19), which led to the closure of learning institutions such as schools, colleges, and universities, restricted movements, affected social interactions, and subsequently made it difficult to complete the study within the stipulated time frame. COVID-19 also affected the authors and their families; hence, data collection and interaction with parents and children with Deafblindness could only be done following the directives from the Ministry of Health and observations of COVID-19 health guidelines.

Generation of data on the natural communication abilities of one of the children with congenital Deafblindness who was exposed to various communication skills proved futile; hence the authors had to depend on information from the parent via interviews, unlike video recording. The use of video recording was also restrictive in some cases since participants' locations and recording of communication abilities could only be done after traveling to the places of residence of participants. This made authors use semi-structured interviews as information sources, unlike solely video analysis.

Theoretical Framework

The theory of dialogism by Per Linell guided this study. Dialogism is based on assumptions that human action, communication, and cognition involve interdependent interactions and cannot be reduced to external cause-effect relations [12]. About cognitive processes mind,' Linell [13] states that the human mind operates as a 'meaning-making system'; thus meaning-making facet of the mind form one of the basic principles of dialogism. The dialogical theory by Linell links cognition to communication and perceives communication and cognition as dialogically intertwined [12].

The theory of dialogism was chosen because for communication to occur, cognitive structures must be active and cognitive activities can produce complex linguistic activities [14]. The dialogism theory helped analyze this study's natural communication abilities of children with congenital Deafblindness. For instance, clapping hands as a sign to respond to conversations detected by a child and touching other people's hands to report certain acts, and initiating conversations using body touch were indications that children with congenital Deafblindness attached meaning to their signs.

2. METHOD

The study employed a qualitative case study. A qualitative case study enables the exploration of complex phenomena by identifying different factors that interact with each other [15]. Thus case studies can yield an intensive study of phenomena [16] and allow the use of multiple types of data sources, and can be explanatory, exploratory, or descriptive. The study sample includes; three (3) children with congenital deafblindness and three (3) parents and (1) relative, making the total number of six (7) participants. The three children with congenital Deafblindness aged three (3), eleven (11), and twelve (12) years were

drawn from the three provinces in Zambia, namely Lusaka, Copperbelt, and Northwestern provinces.

The study used snowball as a sampling technique. Snowball Sampling or chain sampling is most applicable in selecting small populations that are difficult to access [17]. A researcher who employs the snowball sampling technique approaches participants at a time and then asks them to refer the researcher to other individuals [18] with similar characteristics within the population, forming a chain or network of participants that make up a satisfactory sample of participants in the study. Snowball sampling was chosen in this study because children with congenital Deafblindness were challenging to find; hence, there was the need to use informants to locate the children and their parents.

Semi-structured interviews were used to collect data from parents and a relative. Information from parents was collected using semi-structured interviews, whereas data on the natural communication abilities of children with congenital Deafblindness was generated through video recording. The use of video recording helped to analyze the communication abilities exhibited by children with congenital Deafblindness. Semi-structured interviews provided the basis for information from parents on how children with congenital Deafblindness communicated naturally. The information generated from parents could not be captured through video recording; hence, using semi-structured interviews was more appropriate.

Data were analyzed qualitatively using video analysis and thematic data analysis techniques. Qualitative analysis helps illustrate the data in great detail and deals with diverse subjects via interpretations [19] suitable for qualitative descriptive studies. Videos captured depicting the communication abilities of children with congenital Deafblindness formed the source of data that was analyzed via video analysis and information generated through semi-structured interviews analyzed thematically based on emerging themes from the study.

Before undertaking this study, parents and caregivers of children with Deafblindness were approached and explained the nature of the study. Consent was sought from parents or caregivers of children with congenital Deafblindness who agreed to participate in the study after signing the consent forms. Confidentiality was observed to ensure that the participants in this study were not affected psychologically or otherwise. In line with maintaining confidentiality, pseudonyms were used. Informed consent was sought before interviewing participants and collecting data from children with deafblind via video recording. To ensure the anonymity of participants, pseudonyms; Smart, Gift, and Joy were used for children with Deafblindness who participated in the study, whereas parent 1, 2, 3, and relative one were used to refer to parents and one relative who participated in the study.

3. RESULTS AND DISCUSSION

3.1. Results

The study's first objective was to assess the natural communication abilities of children with congenital Deafblindness. Based on this objective, the following themes emerged from the study; (1) Showing signs of happiness and excitement, (2) showing signs

of detecting sound, (3) expressing signs of mistreatment, (4) signs of frustration, (5) using tapping and pointing signs and (6) using imitations. The study's findings were based on video analysis of *Smart*, *Gift,* and *Joy* and responses from their parents during interviews.

Showing signs of happiness and excitement

Signs of happiness were expressed through smiles. One of the children identified as *Smart* could smile whenever he was happy. However, differences between happiness and excitement could be detected in that excitement was characterized by efforts to stand up and jump or stamp the feet on the ground. If an individual perceived to be the source of excitement is closer to him, *Smart* will hug them or her tightly. In one of the recorded videos, which lasted for 2 minutes and 36 seconds, Smart was seen smiling after recognizing the person and started jumping with both feet as a sign of excitement and later hugged the person.

Showing signs of detecting sounds

Smart exhibited signs of detecting sounds. During the study, it was noticed that Smart had a residual hearing. Two different signs were used by *Smart* when detecting sounds. The first sign was the use of *index fingers*. Index fingers were inserted in both ears as signs of detecting some sounds.

The second sign could be differentiated from mere detecting sounds in that such signs indicated *Smart's* ability to detect speech and some conversations. Smart would "*clap*" his hands as a sign of detecting speech. Clapping of hands was also used as a way of trying to respond to some conversations directed at him.

In one of the recorded videos, *Smart* was seen clapping their hands in the 17th second of the video recording to indicate that he was able to detect sound. When contact was made with one of the researchers, *Smart* gently touched the researcher's hands and directed the hands to the ears so that the researcher could touch the ears with her index fingers. The activities lasted for about 2 minutes.

Expressing signs of mistreatment

Smart was able to report some form of mistreatment. Whenever the parent punished or mistreated him, *Smart* would report the occurrence. Smart would touch the hands of an individual he was reporting to, guide them to his ears, and start pulling the ears upwards, an action probably used by the parent when exerting such mistreatment.

Referring to mistreatment or punishment, parent 1 said the following;

> "*Sometimes you have to pull his ears when he does something wrong so that he is aware of his wrongdoings. My friends told me you must beat him when he does something wrong because he may get used to doing wrong things*."

The verbatim by parent one above was an expression that beating or punishment was used to curb the continuity of what was perceived as deviant behavior or wrongdoings by the parent. It can also be noted in the expression of parent one that the action taken by the parent was due to advice from friends, as indicated verbatim above.

Expressing frustration

Smart portrayed expressions of frustration in the form of throwing items given to him. Parent 1 said the following;

> *"He throws anything that is given to him when he is not happy. Sometimes he even throws Nshima (Food) when he is unhappy."*

The Other sign of expressing the feeling of sadness, as exhibited by Smart, was turning their face towards to wall.

> "*He tends to face the wall; sometimes, he does not even want to be touched."*

The parents' response verbatim was the action exhibited by bright face the wall as a sign of frustration because he could also refuse to be touched in some cases.

Crying was used as a commutation sign to express discomfort, frustration, and attention. In one of the videos that lasted 1 minute and 12 seconds, one of the children, identified as *Gift* (pseudonym), was seen crying as a sign of displeasure. The other sign exhibited by *Gift* was rocking the head, which seemed to be a sign of maladaptive behavior because the sign continued even when Gift was not showing signs of frustration or discomfort.

Using tapping, touching, and pointing signs

Joy used tapping and pointing for communication purposes. Responding to the natural communication abilities that *Joy* was using, Parent 3 said the following:

> *"The child would point to the direction where the object she wanted was kept. Sometimes she could tap your body, and sometimes, she would vocalize when she wanted something."*

Different ways of communication can be noted in the verbatim above as expressed by Parent 3. Joy could communicate with other people by pointing in the direction of an object, tapping the body, and vocalizing.

Touching as a means of communication was used by *Smart*. During the interview with Parent 1, the following response was provided;

> "*He (Smart) would touch the brother by the hand or any other person present and start pulling such a person towards the direction of the toilet*."

The response of Parent 1 is that *Smart* would initiate communication by way of touching and directing the person towards the direction of the toilet. Tactile was used alongside actions such as pulling a person towards the direction of an object.

Communication through imitations

Imitations were used as a natural means of communication *Joy*. Concerning natural communication abilities, Parent 3 said the following:

> *"Sometimes, she would imitate those things that I was doing. She would imitate what I did by repeating them maybe twice or thrice. For instance, pointing to the food with her index finger and touching her mouth to indicate that she wants to eat."*

The response from Parent 1 in the verbatim above is that imitations and repetitions were used by *Joy* to communicate. It can also be noted that from the parent's expression, indexing and touching objects were part of the means of communication used by *Joy*.

Measures were taken by parents/caregivers to enhance communication with children with Deafblindness

The second objective was to explore the measures taken by the parents to enhance communication with their children with congenital Deafblindness. Based on this objective, the findings included the following; (1) Use of routines, (2) Using body contact, (3) Using an object of reference, (4) using hand-over-hand communication, (5) hand tactile sign language communication, and (6) observation of body language.

Using routines to enhance communication

Routines were used by relative 1 to enhance communication with *Smart*. Responding to the question on measures to enhance communication with the child. Relative 1 said the following;

> "*In the past, he (Smart) used to mess up himself with fecal matter because we did not know what to do. We started touching him by the Hand and directing him to the toilet after every meal…Smart reverted to what he used to do before we introduced him to 'routines' when he left our place because the people he was staying with did not know what to do.*"

The response by relative one above is that the people who started keeping *Smart* after he left Relative 1's residence stopped following the routines of communicating with Smart by touching and taking him to the toilet after meals, which led to *Smart* reverting to his earlier behavior of urinating and defecating in his pants.

Use of Hand over hand communication and object of reference

Hand over Hand was used by parent 3 to enhance communication with *Joy*. In a video that lasted for 4 minutes 33 seconds. Parent 3 was seen sitting with *Joy* on the same chair and had a bowl on her lap. *Joy* reached for the bowl and started eating food with her hands after 20 seconds. Parent 3 extended her Hand over and touched *Joy*'s Hand to direct the Hand to the folk. *Joy* touched the folk and used it to eat food from the bowl in the 30th second.

In the same video, communication using an object of reference alongside Hand over hand communication used by Parent 3. After 4 minutes and 10 seconds of recording, parent 3 guided *Joy* to sit on the chair near the dining table. Parent 3 later touched *Joy*'s right Hand to direct it to an empty bowl on the table so that *Joy* could touch the bowl, and the parent was also vocalizing during the process. Parent 3 touched *Joy*'s Hand and then touched her mouth twice while holding *Joy*'s Hand after 4 minutes and 22 seconds. *Joy*'s Hand was later directed to an empty bowl, after which Parent 3 made *Joy* touch her mouth, tapping it twice, making a sign of eating. An empty bowl in the video was used to signify an object used for serving food.

Concerning the use of the object of reference, Parent 3 had this to say:

> *"The type of communication I used was the object of reference. When it is time to eat, she will pick a spoon, fork, or plate to signify that she wants to eat either porridge, rice, or other foods."*

The sentiment by Parent 3 in the verbatim indicates that *Joy* could also initiate communication using objects of reference, mainly when she wanted to eat food.

Using body contact

Body contact communication was used to enhance communication between Parent 3 and *Joy*. Referring to communication measures that she used to improve communication with *Joy*. Parent 3 had this to say:

> *"I would use body contact with my child, for example, when bathing… I would act together with my child. I was the one who was leading more in the dressing and bathing part. I would primarily wash, pour water on the child's body and rub soap on the face, use a cloth, and then the child would follow the body movement as well as follow the actions that I was doing."*

It can be noted in the verbatim that Parent 3 was able to initiate body contact communication, and while acting with her child, the child was, in turn, able to follow the body movements and actions initiated by the parent.

The use of body touch was also reported as means of communication between Smart and his younger brother. Parent 1 indicated that Smart's younger brother, aged seven years, who had low vision, provided a communication channel through body touch.

> "*In most cases, Smart depends on his younger brother because when I am out, his brother gives him things. For example, Smart's brother would drink water first and later touch his elder brother and give him a cup of water to drink*," said Parent 1.

Parent 1, in the verbatim above, indicates that Smart's younger brother would use body touch to communicate with his brother.

Using Hand tactile

Hand tactile was used as a measure to enhance communication. In one of the videos, *Joy* was seen responding to hand-tactile communication. The initiator of communication extended the hands to touch *Joy* with open palms; *Joy* gently touched a person's palms using tactile communication for 6 to 7 seconds. The initiator circled her hands while touching *Joy*'s hands twice before tapping *Joy*'s left Hand against her right Hand three times, the sign that made *Joy* stand up in the 15th second and start walking. *Joy* was seen trailing the wall of the house with her left palm. Before entering another room, she was seen locating the position of the chair to which she sat and folding her legs with her hands. The video recording lasted 47 seconds.

The tactile hand technique, as depicted in the 47 seconds of the recorded communication in which *Joy* was able to respond to tactile signs, indicated that *Joy* could respond to familiar tactile communication.

Observation of body language

Communication via observation of body language was what parent 2 used. Commenting on measures taken to enhance communication in the child, Parent 2 said:

> *"I try to check if something is wrong when he (Gift) is crying. Sometimes I look at the body to see if there are signs of him being restless or touching his pants because I do not know what else to do."*

Based on the response of parent 2, it can be noted that despite the parent lacking knowledge on how to communicate with Gift, observation of the child's body language provided the source of information apart from crying.

3.2. Discussion

Children with congenital deafblindness exhibit different communication abilities. The first objective of this study was to determine the natural communication abilities of children with congenital Deafblindness. The study has shown that children with congenital Deafblindness can use different signs to express their emotions, initiate dialogue, and show signs of detecting sounds if they have residual hearing. The study's findings were that children with Deafblindness were naturally able to express their feelings of happiness and frustration. Smiling was one of how children with Deafblindness were able to express happiness. Despite smiling being a natural way of expressing happiness by human beings, children with Deafblindness had no opportunity to see how people in the environment express happiness, implying that smiling is a natural way of expressing happiness. Individual ways of expressing excitement were also noted in this study. Jumping and stamping their feet on the ground while smiling was a particular characteristic of *Smart*'s expression of excitement. It has to be noted that jumping and stamping of the feet is not maladaptive behavior in this context but a way of expressing Joy and excitement.

The findings also revealed that children with Deafblindness could create signs to communicate with others. For instance, *Smart* could communicate that he could detect sounds or conversations by clapping his hands. In Zambian societies, clapping of hands is mainly used as a sign to show appreciation or respect when greeting other people. Clapping hands, as expressed by *Smart* in this study, had no linkage to the Zambian cultural way but a natural ability to express his ability to detect sounds and some conversations. Just like Linell [13] in the theory of dialogism note that the human mind operates as a 'meaning-making system'; clapping hands and touching someone who draws closer and subsequently putting the index fingers in *Smart*'s ears was one way in which the 'mind' of *Smart* created a meaningful expression.

The study also revealed that children with Deafblindness showed unhappiness and frustration. Crying was one of the natural ways that *Gift* used to express discomfort and frustration and seek attention. It must be noted that despite *Gift* crying most often when frustrated or seeking attention, the rocking of the head, which also occurred during crying, can be termed 'maladaptive' in this context, in that action of rocking their head continued in one of the videos even when he was not crying. Crying is a natural means of expressing sadness, frustration, and discomfort by children with Deafblindness, just like any other individual. As earlier cited, Vervloed & Damen [1] indicate that crying is one of the

essential body-centered communication for children with Deafblindness. Nevertheless, there is a need to establish the reason behind the crying of a child with Deafblindness in that other gestures that other children can use without disabilities to augment their communication alongside crying may not be visible in children with Deafblindness.

Throwing items and food, as well as facing toward the wall, were ways of expressing sadness by *Smart.* The study revealed that *Smart* could show frustration by throwing items or food. The behavior portrayed by *Smart* in this context is not unique in that children are naturally likely to exhibit frustration by throwing things given to them. The study also revealed that *Smart* could report mistreatment or punishment cases. Touching the hands of a listener and guiding them to his ears, and pulling them upwards to indicate the treatment he received from the perpetrator was reporting mistreatment. The action by *Smart* concur with Downing & Chen [7] in their observation that the deafblind may exhibit communicative relationships such as establishing and maintaining contact, as well as giving feedback to and from the partner during communication if their sense of touch is effectively used. In this study, *Smart* naturally used touch to report mistreatment or punishment effectively.

Joy also exhibited the use of touch as a natural means of communication. The study found that *Joy* could combine tapping, touch, pointing, and vocalizing. A combination of tapping, touching, pointing, and vocalizing by a child with Deafblindness depicts the aspect of total communication. It should be noted that *Joy* was naturally able to use different means of communication. Joy's actions are in line with Bonner [20], who observes that the deafblind can express their thoughts differently. Regarding the theory of dialogism, which states that human action, communication, and cognition involve interactions that are interdependent and cannot be reduced to external cause-effect relations [12], the actions *Joy's* use of tapping, touch, pointing, and vocalizing indicate the interconnectedness of the cognitive and communication abilities.

Communication through body touch between Smart and his younger brother required enhancement. Despite Smart’s younger brother’s effort to communicate with his elder brother via body touch whenever there was a need to render help in the absence of the parent, the communication skills of Smart’s seven younger brothers could not improve his understanding of the conceptual world and tactile communication. If well-enhanced, body touch and adapted signs can improve understanding of the conceptual world and enhance communication and creativity in children with Deafblindness [9], [11].

Communication through imitations was reported to be one of the ways Joy used it before being introduced to other ways of communicating. Parent 3 reported that *Joy* imitated her by repeating what the mother was doing. Imitations commonly exhibited by individuals with Deafblindness have been viewed as central to their communicative efforts [2], implying *Joy*’s genuine efforts to communicate were through imitations. Positively reinforced imitations are likely to yield effective communication for children with Deafblindness.

The study's second objective was to explore the measures used by parents to enhance communication with their children with Deafblindness. The findings were that routines using body contact, the object of reference, hand-over-hand, and tactile sign

language communication was used to enhance communication with children with Deafblindness.

The study established that routines alongside body touch improved communication with *Smart.* Relative one reported that they started touching and directing *Smart* to the toilet every after meals as measures to prevent him from defecating in pants because they did not know what to do. The motive by Relative 1 to touch and direct *Smart* to the toilet in this context was toilet training, but it has to be noted that body touch was used as a way of communication. The action taken by the caregiver's relative depicts a routine measure naturally undertaken by an individual without knowledge of handling children with Deafblindness. However, it must be noted that despite the routine measure reportedly to have helped improve communication with *Smart,* lack of consistency seem to have affected the initially initiated routine, in that change of environment and caregivers affected *Smart's* progress. It was reported that after *Smart* left relative 1's residence and went to live with other people, Smart reverted to his earlier behavior of urinating and defecating in pants. Change of environment and caregivers, as well as lack of consistency, thus contributed to *Smart's* inability to master toileting skills effectively through routines and body touch.

Hand over Hand, the object of reference, and vocalization were used by parent 3 to enhance communication with *Joy*. The study revealed that Parent 3 could use Hand over Hand and sometimes object of reference to communicate with Joy during eating or when teaching daily living skills. Studies have shown that Hand over Hand and object of reference can be practical means of enhancing communication in children with Deafblindness [2], [9]. The findings of this study concur with assertions made by other scholars on Hand over Hand and object of reference in that *Joy* was sometimes able to imitate communication using object of reference, mainly when she needed food. The use of vocalization alongside other means of communication by Parent 3 provided an opportunity for *Joy* to utile residual hearing to improve speech and communication.

Observation of body language as a measure taken by parent 2 to detect signs of restlessness or discomfort in *Gift* may have enhanced communication with a child with Deafblindness. Nevertheless, it has to be noted that the initiative was more of a natural phenomenon from a parent who lacked knowledge on how to respond to her child with Deafblindness. The response from the mother whenever *Gift* cried and exhibited signs of discomfort eventually triggered the development of natural body movements and signs such as touching pants which to some extent was a reflection of the mind and body creating a 'meaning-making system' [13] and subsequently attracting the attention of the mother. The scenario depicted by *Gift* concurs with the observation of Deasy & Lyddy [2] that children with congenital Deafblindness develop natural signs for communication, which are gestures that come from the deafblind's movements. However, despite *Gift*'s ability to make body movements that attracted the mother's attention, there was a need to teach some signs to *Gift* if communication was to be enhanced.

The study also revealed that the use of body contact and Hand tactile were measured by Parent 3 to enhance communication with the child. Body-to-body interaction has been cited as one technique that improves communication in children with

Deafblindness [21]. In this study, Parent 3 used body contact by acting together with a child during bathing, which made the child follow the body movements of her mother and subsequently learn the bathing skills. The study also revealed that Joy could respond to hand-tactile communication, as depicted in one of the videos that lasted for 47 seconds. *Joy* responded to the palm signs and tactile communication, indicating that Joy was familiar with the tactile communication used during the conversation.

4. CONCLUSION AND RECOMMENDATION

CONCLUSION

The study found that children with congenital Deafblindness can develop signs and communicate naturally. It can be concluded that despite children with congenital Deafblindness possessing the ability to naturally communicate their feelings of happiness, frustration, or discomfort, showing signs of detecting sounds, expressing signs of mistreatment, tapping and pointing signs, and using imitations. Parents 1, 2, and relative one did not know techniques that could enhance communication in children with congenital Deafblindness, thus hindering the advancement of their communication skills. It can also be concluded that the parent's effective use of appropriate communication techniques such as Hand-over-hand communication, the object of reference, body contact, and tactile hand techniques improved communication skills with her child.

RECOMMENDATION

1. There is a need to teach communication techniques for individuals with Deafblindness to parents and caregivers of children with Deafblindness to improve communication among children with congenital Deafblindness in Zambia.
2. There is a need to study communication techniques parents, and caregivers use for children with Deafblindness in Zambian communities.

FUNDING

DbI African Research Initiative supported this work.

CONFLICTS OF INTEREST

No conflicts of interest were reported.

ACKNOWLEDGEMENTS

We want to thank the African Research Initiative Advisory Committee (DbI ARI AC) for approving and subsequently sponsoring this study under the first round of the DbI African Research Initiative on Deafblindness. Thanks to Dr. Pawlos Kassu, who played the coach role in this study. We also extend our gratitude to Mrs. Simwizi and others who remained anonymous for helping us trace children with congenital Deafblindness in Zambia. We would also like to thank the Parents and children who participated in this study, without which the study could not have been successful.

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ISSN 2963-7147