

4. Education and Language

A case study of deaf persons in Adamorobe

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Abstract

The problems faced by Deaf people in Ghana are increasingly disheartening. In this chapter, we investigate the effects of poor education and language stagnation (e.g., the inability to read and understand English and communicate maximally with Ghanaian Sign Language) in the lives of Deaf individuals in Adamorobe, a village with a large concentration of Adamorobe Sign Language (AdaSL) users. To do this, we interviewed a cross-section of Deaf people in Adamorobe across ages and gender. We further analysed how lack of education affects their ability to communicate in Ghanaian Sign Language and English and how it has ultimately affected their livelihoods. We further outline how the acquisition of education contributes to the language development of Deaf individuals which ultimately leads to their social and economic development. The paper concludes by outlining the way forward and the role of the family, society, and government institutions in the lives of Deaf people.

Keywords: *Education, Language, Adamorobe, Deaf persons*

Introduction

The world has presented disability as inability and throughout history, people with different disabilities are disregarded, maltreated, discriminated against, and, the worst still, killed (Livneh, 1982; Yunker, 1988; Lang, 2003). Historical records have presented evidence to demonstrate the infanticide practices that were done to eliminate children with disabilities who were perceived to be burdens in society (Mosely, 1985; Kiyaga & Moores, 2003). The acceptance of people with disabilities came gradually in diverse

cultures (Miles, 2004) and rich children with different kinds of impairments were first to be accepted, groomed, and, eventually, educated (Kiyaga & Moores, 2003). Although the aversion towards people with disabilities seems to have reduced, unreported cases of discrimination and stigmatization persist in most communities in developing countries.

Hard of hearing, one of the biggest sensory deficits in the world (Kelsell, et al, 1997; Mathers, Smith, & Concha, 2000) has affected millions of people. While some conditions are mild and can be treated with hearing aids, others have total hearing loss and can only be corrected through surgical means (cochlear implantation), and some conditions cannot be treated at all. A study by Kubba, Macandie, Ritchie, and Macfarlane (2009) showed a link between socio-economic deprivation and hearing loss, thus hearing loss can as well be termed the disease of the poor. In certain parts of sub-Saharan Africa, the presence of drought, hunger, and starvation are constant (Kiyaga & Moores, 2003) and these unfavourable conditions compounded by lack of quality health care services in most rural communities increases the cycle of childhood impairments. Hearing loss is caused by several reasons including childhood diseases, genetic transfer and other accidental sicknesses (Amedofu, Ocansey, & Antwi, 2006).

The notion of being deaf is mostly perceived by others as the inability to talk, listen, and sometimes lack of reasoning (Kyle, Kyle, Woll, Pullen, & Maddix, 1988). In other words, some people believe that the only language viable for human communication is speech (e.g., President of the Milan Conference) and signed language and other gestural resources are not considered as languages (Lane, 1992). This belief led to the conclusion (at the Milan Conference in 1880) to teach Deaf people with speech and for several years this act distorted the Deaf educational system in several parts of the world because signed language was ultimately taken from Deaf students and replaced with speech (Vermeerbergen, 2006).

The history of Deaf education is filled with several instances where people tried to teach Deaf students with spoken language

(oralism) as opposed to signed language (manualism). This pivotal change was agreed on at the Milan Conference that was held in 1880 to discuss the language to be used to teach Deaf students. The misrepresentation of the conference (one Deaf representative out of the 16 attendees) and the conclusion that was drawn (to use speech to teach Deaf people) led to a disarray in Deaf education. In the words of Vermeerbergen, “European deaf schools became (strictly) oral” (Vermeerbergen, 2006, p. 171).

Deaf education within sub-Saharan Africa is believed to have originated in the 19th century through the effort of European and American missionaries (Kiyaga & Moores, 2003). Prior to Colonisation, Deaf people in Africa communicated with gestural resources and few communities had village signed languages (e.g., Adamorobe in Ghana) or home sign systems. In addition, no formal education was available for them. Céline Baduel Mathon in 1971 “made a detailed classification of gestural communication in West African countries from the documentation of the two previous centuries” (Miles, 2004). Based on this classification by Celine Baduel Mathon, it can be deduced that regulated signed languages might have been in existence in most West African communities (Edward, 2015a) and Deaf people, although not formally educated, communicated with the resources available to them (hand gestures).

In many nations of the world, there have been recorded accounts of failure in Deaf education. Johnson, Liddell, and Erting (1989) record that the failure of Deaf education in America was due to the lack of linguistic access to curricular content and the cycle of low expectations. They recommended the early acquisition of American Sign Language (ASL) to help develop cognitive skills and improve the child’s ability to learn English. Marschark and Harris (1996) recount the troubles that deaf and hard of hearing children have in learning to read and write. Most of the failures of Deaf education in many places of the world are caused by the failure of the family, government, societies, and other institutions to provide adequate support and at all levels of education. Asonye, Asonye, and Edward (2018) are of the view that the failure of Deaf education in

Nigeria is as a result of a high level of stigmatisation against Deaf students.

Perception of Deaf and hard of hearing in Ghana[1]

About 0.4% of the total population of Ghana are reported to have hearing loss and another 0.4% have speech impairment (Ghana 2010 census). Comparing hearing loss to other disabilities in Ghana, hearing loss is not a highly-ranked disability in Ghana and per the 2010 census, there are few people experiencing hearing loss as compared to other disabilities in Ghana. As an audiological disorder, certain government and private institutions have established units that care and assist people who experience hearing loss. Usually, hearing loss in Ghana is detected after the child is born and correctional treatment is given if and when possible. In Ghana, the perception of hearing loss is *medical, spiritual* or *social*.

Table 1

Population with disability in Ghana (2010 census)

Population with disability	Percentage (%)	Numbers
National disability rate	3%	737,743
Visual/Sight	1.2	295,720
Hearing	0.4	110,625
Speech	0.4	101,096
Physical	0.8	187,522
Intellectual	0.5	112,082
Emotional/Behavioural	0.6	136,898
Others	0.3	76,692

From the *medical* perspective, genetic studies of some Deaf people in Ghana have revealed that there are several mutations that cause genetic deafness and hearing loss (Hamelmann et al., 2001). The dominant mutation is the R143W listed as the recessive cause of deafness and hearing loss in Ghana, “where it was the sole GJB2 mutation found in a village with an extraordinarily high prevalence

of hearing impairment” (Brobbe et al., 1989, as cited by Hamelmann et al., 2001, p. 2) in Adamorobe. Genetic hearing loss is inherited from one or both parents. A deaf parent can transfer it to an unborn baby. Another major cause of deafness and hearing loss in Ghana is childhood sicknesses including measles, meningitis, fever, presbycusis, mumps, among others (Amedofu et al., 2006).

The discovery of other audiological disorders most times, take place after the post lingual stage and any attempt to have an early treatment might not be possible except for the use of the hearing aids for those who have minimal hearing ability. We identified the majority of Deaf people in urban[2] areas as post lingual deaf and these Deaf people attributed the cause of their deafness and hearing loss to childhood sicknesses. The interviews conducted with about ten Deaf people in June 2018 revealed that about eight of them were not born deaf. They became deaf through childhood sicknesses especially *measles*. Other sicknesses that cause people to be deaf in Ghana are meningitis, fever, presbycusis, mumps, among others (Amedofu et al., 2006). The Ghanaian Deaf community is generally against cochlear implants and this expensive operation is not done in the country. The best correctional (medical) measure is the hearing aid for Deaf people with low decibels of hearing capacity.

A few other Ghanaians perceive deafness and hearing loss as a *spiritual* attack. The religious beliefs in Ghana attributed most sicknesses and ailments to a divine cause and general treatment were refused for children who were perceived to be carriers of a spiritual disease. In Adamorobe, the stories about the cause of deafness and hearing loss are packed in mythical stories of spiritual encounters with gods and witches, and breaking taboos (Nyst, 2007; Kusters, 2012a). The assertion is deeply embedded in the belief in spiritualism in Ghana (Kuwornu-Adjaottor, 2011; Sackey, 1999) and “ailments/misfortunes are believed to have spiritual causality and hence they need spiritual treatment” (Sackey, 1996, cf. Sackey, 1999, p. 66). The Ghanaian view of spiritualism is deeply embedded in African Traditional Religion and although many Ghanaians have converted to Christianity and Islamic religions, for most people in

rural communities (and a few others in urban Ghana), there is the tendency to consult a Spiritualist during pregnancy and *religious concoctions* are taken to protect the baby from spiritual attacks. Sackey (1999) stated that “[t]raditionally, medicine is an integral part of African religions, but during the colonial period African medicine was suppressed by the introduction of biomedicine” (p. 66).

Currently, there is a gradual resurgence of African Medicine and these have been taken through scientific purification and branded for the market. Early childhood sicknesses are sometimes treated with these traditional medicines because some of these medicines are believed to offer spiritual protection. The belief that certain people are responsible for diseases and sicknesses is not limited to particular ailments. From migraine to convulsions, there is the tendency to ascribe the causality to evil spirits and “[t]hose responsible for antisocial acts are believed to be human beings with evil spirits, for example witches” (Sackey, 1999, p. 68). Therefore, deafness and hearing loss and many other sicknesses are given spiritual bases, and these sometimes hinder the need to seek early medical treatment for some preventable diseases.

The societal perception of deafness and hearing loss (and disability, in general) in Ghana has been from rejection to acceptance and from discrimination to acculturation. The Ghanaian society is generally perceived to be welcoming to people of all cultures and ability. However, there have been several instances of rejection and discrimination towards people with disabilities. Conversations with Deaf people have revealed the struggle they go through to compete with other hearing people with the same qualifications. In most workplaces, there are preferences for people without disabilities for employment. Equal opportunities for deaf and hearing people do not happen for Deaf people or most disabled people in Ghana. Although, the general perception towards disability *seems* to change from rejection to acceptance, there are also unreported cases of marginalization and stigmatization from the immediate family to the general community.

The perception of disability in Ghana has not changed much.

To Avoke (2001), the changing philosophy towards people with disabilities in Ghana was in terms of educational provisions but the attitude of people remained the same. Thus, people who are deaf and hard of hearing and other people with several levels of disabilities were seen as societal pollutants and special institutions were established for them.

Deaf education in Ghana

Deaf education in Ghana, began in 1957 when Rev. Dr. Andrew Foster started the first school for the Deaf in Osu in the Greater Accra region that later moved to Mampong in the Eastern region (Okyere & Addo, 1994; Kigayaa & Moores, 2003). Before his demise in 1987, he (Rev. Dr. Andrew Foster) had set up 32 schools in 13 African countries. In Ghana, after he left, the government replicated his model in all 10 Regions; one in 8 of the regions, 2 in Central and 3 in Eastern region[3]. Currently, there are approximately 13 special schools for the Deaf in Ghana. There are also 4 inclusive institutions for both people who are deaf and hearing. Prior to Foster's schools, there was no documented record of a regulated education for deaf and hard of hearing children in Ghana and many nations of sub-Saharan Africa. Deaf education was not part of the national educational plan and deaf and hard of hearing children were not educated.

Prior to 1957, the development of schools and curricula in Ghana did not include education for people who are deaf and hard of hearing and Avoke (2001) was of the view that the development of the school system for children who were deaf and hard of hearing and blind was influenced by the missionary factor. Foster was a Deaf missionary who came to Ghana to *save Deaf souls*. Education and religion have been intertwined in Deaf cultures in Africa for several years (Edward, 2015b). Lucas explicitly states that “[I]earning to read (and for some to speak) was a by-product of saving deaf souls” (Lucas, 1990, p. 264).

Although some Deaf people across the nation have advocated for the need for an inclusive education, it seems impossible especially

at the basic level due to lack of trained personnel and adequate logistics to implement a national inclusive education. The concept of inclusive education for students with disabilities helps to identify and remove barriers (Morley & Croft, 2011) that such students are likely to face if they are educated in special institutions. From all indications, inclusive education is possible in Higher educational institutions as compared to Basic and Secondary schools.

Disability education in Ghana has encountered some shortfalls (Ametepee & Anastasiou 2015). Opoku, Mprah, Owusu, Badu, and Torgbenu (2016) presented the failure of Deaf education in the Ashanti and Brong Ahafo regions of Ghana. In their paper they also gave a general report about a study that was conducted by the Ministry of Education showing that 70% of children with disabilities were not attending school.

Methods

Study setting- Adamorobe

Adamorobe is located in the Eastern region of Ghana. The small community is known for its unusual rates of people who are deaf and hard of hearing (Okyerere & Addo, 1994; Nyst, 2007; Kusters, 2012a; 2012b). The oral history of Adamorobe indicates that people who are deaf and hard of hearing have existed in the community for as long as anyone could remember. Further, members of the Deaf community in Adamorobe are believed to be the earliest group of people who are deaf and hard of hearing in Africa to have used a formal signed language (Miles, 2004). This signed language was used by both people who are deaf and hard of hearing, and hearing people in Adamorobe as far back as 1733 (Okyerere & Addo, 1994). The prevalence of people who are deaf and hard of hearing in Adamorobe led to the promulgation of the marriage law in the 1970's. This law sought to ban marriages between people who are deaf and hard of hearing at Adamorobe as a gradual step to halt the presence of genetic deafness and hearing loss in the community (Nyst, 2007; Kusters, 2012a; Edward, 2018). The marriage law in Adamorobe "has produced multiple effects including denial to have

marital partners, denial to have children, stigmatization, divorces, unstable relationships, lack of economic support and loneliness” (Akanlig-Pare & Edward, 2020).

The Adamorobe community is a highly multilingual society and different languages are spoken by hearing members of the community. The major spoken language is the Akuapem Twi dialect of Akan, which is spoken by a majority of the native and non-native members of the community. Other spoken languages that are used include Ga, Ewe, and English. Aside from spoken languages, the community is also noted for their unique signed language that is used for communication by people who are deaf and hard of hearing, and hearing signers in the community. Adamorobe Sign Language (AdaSL) is the lingua franca for the Deaf community and hearing signers in Adamorobe (Edward, 2015b). The language is acquired through intra-community communication and through family members. There is no formal training to acquire AdaSL.

The educated members of the Deaf community are also introduced to Ghanaian Sign Language (GSL), which is the language used for Deaf education in Ghana (Akanlig-Pare, 2013; 2014). The existence side by side of AdaSL and GSL has resulted in the use of communicative strategies, such as code switching and code mixing by both educated and uneducated members of the Deaf community for effective communication. For purposes of in-group communication, GSL[4] signs are resorted to by members of the Deaf community since the hearing members of the community who know AdaSL do not know GSL (Kusters, 2012a; Edward, 2015b). Edward (2015b, p. 16-17) is of the view that “AdaSL is the lingua franca between the hearing and the deaf signers, GSL is the ‘secret code’ that is used by the deaf to conceal issues from the hearing people” and “[a] shift to GSL is preferred in deaf-deaf conversations in which hearing people are not meant to be included.”

Most of the indigenous members of the community have at least one person who is deaf in their extended family. A few hearing couples have one or two children who are deaf or hard of hearing. From interactions we had with some of the hearing signers, they

believe the genes that cause people to be deaf are sometimes passed on to the hearing members of the community who have some blood relation with the people who are deaf and hard of hearing.

Data collection

Eleven members of the Deaf community in Adamorobe were recruited for this study. These were made up of 5 males and 6 females aged between 24-72 years. Seven of the consultants were either married or in cohabiting relationships and 4 were single. The interview sessions involved focus group discussions with the consultants. A semi-structured interview guide was created by the authors to guide eliciting information from the consultants. We analysed the results of the findings in sections below.

Limitation of the study

The main limitation of the study is the sample size of 11 consultants out of the 40 identified members of the Deaf community in Adamorobe. We were constrained by time and resources to interview all the 40 identified members of the Deaf community in Adamorobe. However, we presume that 11 consultants from varied age-groups give a general representation of the Deaf community in Adamorobe.

Results

Our findings from the interview sessions are discussed in the subsections below focusing on Deaf education, language and development.

Deaf education in Adamorobe

Table 2 presents the summary of the educational levels of members of the Deaf community who were consulted. These figures were based on the research findings of the 11 consultants who were recruited for this study.

Table 2

Educational status of interviewees

No.	Formal education	Level if Yes
1.	No	
2.	No	
3.	No	
4.	No	
5.	No	
6.	No	
7.	No	
8.	No	
9.	No	
10.	Yes	Vocational
11.	Yes	SHS

From table 2, we identified only 2 educated Deaf individuals among our 11 consultants. The ages of the two educated consultants are 24 and 25 as compared to the older consultants who are between the ages of 45 and 72. From these figures, we deduced that education for members of the Deaf community is recent in Adamorobe as compared to educating hearing people. These numbers reiterate earlier reports by Kiyaga and Moores (2003) that in the face of poverty, there are few services provided for people regarded as disabled and these include Deaf people. It is possible that education for the other 9 consultants were not considered necessary or relevant even if there was a school for people who are deaf and hard of hearing a few miles from Adamorobe. Further, two of the consultants aged 69-72 were born when there was no formal education for people who are deaf and hard of hearing in Ghana.

Further discussions with the consultants and other hearing members of the community revealed that Deaf education was not prioritized in the past. Although the older Deaf people among the consultants remember the exploits of the Rev. Dr. Andrew Foster and the subsequent establishment of a school to teach deaf people in Adamorobe, education for deaf Adamorobeans did not become a

reality until recently. We identified three major reasons inhibiting Deaf education in Adamorobe from our discussions with the consultants. These are rejection, poverty, and teenage pregnancy.

Rejection towards Deaf people is prevalent in developing countries. Asonye, Asonye, and Edward (2018) and Kiyaga and Moores (2003) identify rejection as one of the major limitations of Deaf people across Africa. In Adamorobe, the rejection experienced by the older Deaf consultants was very mild. However, they were denied the opportunity to live life to their own expectation as the community perceived them as inferior to the hearing members of the society. They were therefore denied education because they were not fully accepted as being able to do all that their hearing contemporaries could do.

Poverty is a challenge in developing countries (Pernia & Quibria, 1999) and Ghana is no exception. The widespread poverty among rural communities is a major contributing factor for lack of education for children in rural communities. It is an undeniable fact that rural livelihoods have faced several challenges and one such challenge is the need for money and other social benefits (Edward, 2018). The stark poverty they live in makes it difficult for parents to educate their deaf and hard of hearing children. Basic education is free in Ghana, but poor parents still find it hard to afford basic needs of the school-going child. In some instances, when the meagre family resources cannot support more than one child, preference is given to the hearing child over the deaf or hard of hearing child. The following are two excerpts from signed discussions with the consultants:

AK: CHILD GO SCHOOL GOOD. MONEY NOT HAVE, UNIFORM NOT HAVE. CHILD GO FARM WORK WORK WORK. MONEY NOT HAVE. (AdaSL Gloss)

It is good for the child to go to school. However, we do not have money, we cannot buy uniforms. The child has to go to the farm and work because we do not have money. (English)

KP: I TELL DEAF CHILD GO SCHOOL. CHILD SAY NO.

MONEY NOT HAVE. I GO FARM WORK WORK. MONEY NOT HAVE. (AdaSL Gloss)

When I tell deaf children to go to school, they refuse. I work at the farm. I do not have money. (English)

Currently, education for young Adamorobeans seems to have improved. Two of the consultants who have had formal education shared their experiences. They could read and write English and were bilinguals in Ghanaian Sign Language (GSL) and Adamorobe Sign Language (AdaSL). We also identified other young deaf Adamorobeans who were schooling at Mampong School for the Deaf. The older generation did not benefit from education but the younger deaf and hard of hearing are being educated. However, a few encounters with two young adults (these meetings were not formal interview sessions) showed a lack of interest in education. A 17-year-old deaf young adult was not sure of a career after school and preferred to stay at home rather than to go to school. This decision of his was motivated by the fact that his elder sister had completed school and still works at the farm. We found out that the negative attitudes towards education is caused by the non-improved statuses of some of the educated deaf in Adamorobe.

A few of the young women withdrew from school as a result of teenage pregnancy. From our consultants, we identified teenage pregnancy as a major challenge to deaf education. The teenage girls are swayed with gifts and attention and they ultimately fall for their hearing “predators.” The very fortunate ones are either married by these men or at least live together with their *baby-fathers* in a co-habitation union. These pregnancies alter their education pathways and ultimately the teenagers drop out of school, ending their educational journeys and life dreams. Some of the deaf daughters of the consultants have been victims of teenage pregnancies.

Knowledge in Signed languages and English

The main language of communication for deaf Adamorobeans is AdaSL that is used by both deaf and hearing signers. AdaSL is a native language for Deaf people in Adamorobe. It is acquired in the family or through intra-community communication. Ten out of

the 11 interviewees acquired AdaSL from their immediate families because they had a Deaf parent or deaf siblings. Only one signer acquired AdaSL from other Deaf members of the community because she was from a predominantly hearing home. As L1, or first language users of AdaSL, all the 11 interviewees confirmed that they are highly proficient in AdaSL.

Only two of the signers confirmed their proficiency in GSL as excellent. The other nine interviewees could code-mix with the few GSL lexical items they have acquired through language contact. The nine uneducated interviewees could neither read nor write in English. The table below presents the summary of the proficiency level of GSL among the eleven interviewees.

Table 3
Proficiency in Ghanaian Sign Language

No.	Proficiency in GSL	Level	Place of acquisition
1.	Yes	Minimal	Interaction with other GSL users, personal training in the past, church meeting
2.	Yes	Low	Interaction with other GSL users, church meeting
3.	Yes	Low	Interaction with other GSL users, church meeting
4.	Yes	Low	Interaction with other GSL users, church meeting
5.	Yes	Low	Interaction with other GSL users, church meeting
6.	Yes	Low	Interaction with other GSL users, church meeting
7.	Yes	Low	Interaction with other GSL users, church meeting
8.	Yes	Low	Interaction with other GSL users, church meeting
9.	Yes	Low	Interaction with other GSL users, church meeting
10.	Yes	High	School
11.	Yes	High	School

We identified LOW proficiency as being able to use few lexical items from GSL through code-mixing, basic knowledge of GSL alphabet (for own name and for others) and ability to sign ten or more basic sentences in GSL. The lexical items that were identified in the AdaSL sentences included signs for household tools and objects, locations (e.g., CHURCH, SCHOOL, HOSPITAL), and abstract concepts (e.g., RICH, POOR, TROUBLE, FORGET, HOT).

The basic sentences borrowed from GSL include the following;

NAME ME ...

DEAF ME.

I MARRY/ I MARRY NOT

I WORK ...

We coded MINIMAL proficiency as the ability to communicate in GSL through code-mixing, code-switching, knowledge of GSL lexical items, numeracy, alphabets, constructing complex sentences in GSL, basic knowledge of the differences between GSL and AdaSL. Minimal signers were rated as active communicators. HIGH proficiency signers could communicate in well-structured GSL sentences and are very proficient in every aspect of the language needed for education and communication.

In as much as a lack of education is a major determinant of acquiring GSL in Adamorobe, we did not identify any educated deaf adults among our interviewees. The two educated signers (ages 24 and 25) had high knowledge in GSL and this was acquired through formal education. One other signer had minimal knowledge acquired through personal training, interaction with other GSL users and through church meetings. The influence of church in GSL acquisition in Adamorobe is very relevant in this context. In a recent discussion (May 2018) with deaf Adamorobeans, we identified one other church besides the weekly Lutheran Deaf church that runs every Sunday at Adamorobe. The Lutheran church operates in both GSL and AdaSL, partially because the Pastor is not from Adamorobe but from Accra and he is a proficient user of GSL. A few other Deaf people have started attending a church outside Adamorobe. This new church has interpretation services for Deaf members and this

is done in GSL. Deaf Adamorobeans are therefore introduced to GSL through religious activities (Edward, 2015b).

We identified that knowledge of English is directly linked to education. None of the uneducated signers could either read or write. This is not specific to deaf Adamorobeans. Uneducated Ghanaians are unable to read and write English even though they can make basic English sentences or speak Pidgin English.

Table 4. Formal education and the ability to read and write

No.	Formal education	Reading	Writing
1.	No	No	No
2.	No	No	No
3.	No	No	No
4.	No	No	No
5.	No	No	No
6.	No	No	No
7.	No	No	No
8.	No	No	No
9.	No	No	No
10.	Yes	Yes	Yes
11.	Yes	Yes	Yes

Language and Development

We identified the acquisition of languages learned in school (GSL/English) as a marker of progress. The progress was measured in terms of how the interviewees perceived their current state. Eight out of the eleven interviewees determined that lack of education has had a negative impact on their lives. These eight Deaf people were subsistent farmers. One other person was not sure if education could have improved his life or not. The two educated Deaf people determined their current state as positive and appreciated their education. Although one’s current job is not directly linked to her

education, she felt education has given her respect and self-confidence.

Another issue we identified was the fact that lack of education and jobs promoted teenage pregnancies in Adamorobe. All the eleven consultants agreed that the lack of education and the absence of jobs for the young Deaf people in Adamorobe were major causes of the prevalent teenage pregnancies in Adamorobe. All the participants agreed that the main reason for promiscuity among the young Deaf females was the poverty they lived in. The two young female participants had one child each and one was single, and the other was engaged in co-habitation. Table 5 represents the perception of the participants in the relationship between lack of education/ jobs and teenage pregnancies. The second column represents the educational status of participants and the third and fourth columns represent perceptions.

Table 5

Relationship between lack of education, teenage pregnancies, and lack of jobs

No.	Formal education	Lack of education promote teenage pregnancy	Lack of jobs promote teenage pregnancy
1.	No	Yes	Yes
2.	No	Yes	Yes
3.	No	Yes	Yes
4.	No	Yes	Yes
5.	No	Yes	Yes
6.	No	Yes	Yes
7.	No	Yes	Yes
8.	No	Yes	Yes
9.	No	Yes	Yes
10.	Yes	Yes	Yes
11.	Yes	Yes	Yes

Discussion

Our interviews with the eleven Deaf people from Adamorobe support that teenage pregnancy, unemployment, lack of education, and language development are some identified issues affecting the livelihoods of deaf Adamorobean people. We discussed the effects of poor education and language stagnation in the lives of deaf individuals in Adamorobe. Previous research has indicated the link between deafness and poverty (Kubba et al., 2009). Our investigations at Adamorobe further support this linkage. From our interactions with the Deaf consultants, we deduce that the ability to find a meaningful job as a Deaf Adamorobean is partly linked to one's education and training. However, some of the older Deaf people who are not gainfully employed are not able to afford basic needs of their deaf and hard of hearing children. The cycle of poverty is continued as these Deaf teenage children of our consultants become victims of teenage pregnancies and ultimately drop out of school.

Stigmatization of deaf people is a worldwide issue and it is more prevalent in poorer societies where the ability to speak (orally) is linked to the sense of being and wellness. The constant rejection of Deaf people leads to low self-esteem and this ultimately causes lack of interest in personal growth and development. In Adamorobe, teenage Deaf girls are sometimes victims of sexual exploitation. These victims are sexually abused by "evil" men who give them "portions of drinks mixed with sleeping pills" (comments from interviews). The pregnant teenagers are sometimes abandoned by these evil men and they are left to cater for themselves and the babies alone. A few others who are impregnated end up in cohabitation unions with the fathers of their children.

Another deep-seated stigmatization is the rejection of Deaf women by their "baby fathers." Most Deaf women we interviewed would prefer to have children with other deaf men but for the fear of the marriage law and societal discrimination (also in Kusters, 2012a), they find it convenient to be in sexual relationships with hearing men to increase their chances of having hearing children. The joy of having hearing children is worsened when these fathers abandon

the duty of taking care of these babies to the Deaf mothers. One disadvantage of the marriage law is broken relationships and lack of economic support (Edward, 2018).

In addition to this, one Deaf person revealed that her hearing daughter was taken away by her hearing partner without her consent. The hearing partner was posted to teach at the government basic school in Adamorobe in the early 1980s, at the time Deaf people were least regarded. He impregnated the deaf Adamorobe teenager and left the community with the child without informing the mother of where he was going or details of where to find him. A further interview with other members of the community revealed that this incident was caused by stigmatization. The educated man (teacher and hearing) did not want his daughter to be associated with an uneducated Deaf woman.

Stigmatisation is further compounded by joblessness. From all indications, one of the basic requirements for a good job offer is education (Edward, 2018). However, because most Deaf people in Adamorobe are not educated, it affects their ability to be gainfully employed. Farming, selling, stone quarry, among others are some of the few economic ventures that deaf Adamorobeans engage in. Poverty is a deep-seated challenge that affects Deaf livelihoods in Adamorobe.

The struggles of Deaf students in Africa include access to quality education, financial support, and an enabling environment to aid quality studies (Kiyaga & Moores, 2003; Ajavon, 2006). We found out from our consultants the relationship between education and employment; all the Deaf consultants attributed good education to good jobs. We further did a matching up of person, educational level, and employment. We identified a strong relationship between education and good jobs (100% of signers linked good education to good jobs). The older Deaf people who were interviewed valued education or schooling as an important remedy to end poverty among the Deaf people. This confirms an earlier report by Kusters (2012a). The frustration felt by Deaf adults for their lack of education and “contrasting this with the opportunities that the deaf children

from Adamorobe get nowadays, as they attend the school in Mampong” (Kusters, 2012a, p. 2777), most Deaf adults believed that the younger generation is better off. Having a good education is tantamount to getting good occupations for Deaf individuals, which ultimately leads to their social and economic development.

Table 6

Education levels and occupation of Deaf people

No.	Age	Gender	Education level	Occupation
1.	55	M	Null	Farmer
2.	72	M	Null	Farmer
3.	49	M	Null	Farmer
4.	45	M	Null	Farmer
5.	60	M	Null	Herbalist/Farmer
6.	55	F	Null	Farmer
7.	53	F	Null	Farmer
8.	69	F	Null	Farmer/stone quarry work
9.	55	F	Null	Farmer
10.	24	F	Vocational training	Hair stylist
11	25	F	Senior High School	Trader

Conclusion

Persons who experience hearing loss around the world have been discriminated against in diverse ways and these acts of discrimination have impeded their growth, well-being, and livelihoods. From our study we have outlined the status of education and its effect on the language development of Deaf people and how this contributes to stagnated economic growth. The remaining part of the paper presents the alternatives to making Deaf lives better. We briefly discuss the roles of the family, society, and government institutions (and other private institutions) in improving the lives of Deaf people and ultimately giving them access to acquiring GSL and English in addition to AdaSL.

The problems and stigmatization of Deaf individuals begin with the family (Asonye, Asonye, & Edward, 2018). Stigmatization and rejection of deaf and hard of hearing children by the family is mostly as a result of ignorance and lack of understanding (Ajavon, 2006). This ignorance leads families to brand deaf and hard of hearing children or disabled children as “cursed” and maltreat these children. These children are sometimes hidden from the public or abandoned. We were surprised to find out from the former Headmaster of the Mampong Demonstration School for the Deaf that some parents abandoned their children and refused to come for them during vacations. The first step to ending this stigmatization by immediate families is education and demystification of deaf and hard of hearing as a “curse from some supernatural being.” We advocate for a national or regional forum to educate and erase this erroneous thought that families have about disabilities. We believe these efforts will go a long way to break the barrier between Deaf people and their hearing family members.

Societal laws and regulations like the Adamorobe marriage ban (Nyst, 2007; Kusters, 2012; Edward, 2018) have created a divisive society that has stripped Deaf people of their rights to marry among themselves. We suggest that the growth and development of Adamorobeans who are deaf is dependent on the relationships they build among themselves, how much they support each other, and how society perceives and treats them. We are of the view that AdaSL shared by both deaf and hearing people of Adamorobe is an important bridge between the deaf world and the hearing world. However, we identified that there are few hearing signers of AdaSL currently and this decline is due to the following factors; migration of different people into Adamorobe, the death of many Deaf Adamorobeans, and the gradual shift to GSL (Edward, 2015b; Edward, 2018; Akanlig-Pare & Edward, 2020).

AdaSL is currently listed in Ethnologue[5] as an endangered language as recorded by both Nyst (2007) and Edward (2015b). The special inclusion of deaf Adamorobeans into the larger community through a shared signed language used by both Deaf and hearing

people in Adamorobe is at the verge of becoming “a relic of the past” (Kusters, 2012a, p. 2780). AdaSL is endangered, because the number of Deaf and hearing signers has reduced and currently the language is predominantly used by Deaf people. Further, we suggest a shared culture for deaf and hearing Adamorobeans that will encourage Deaf people to seek to improve their livelihoods through education and acquisition of skills through training.

The role of government and other private institutions in the development of Deaf people’s education and language cannot be over-emphasized. The onset of Deaf education in most nations in sub-Saharan Africa began as a religious intervention by Rev. Dr. Andrew Foster (Kiyaga & Moores, 2003). Religion has always been tied to Deaf lives and the act of *saving deaf souls* led to the training of many Deaf individuals in signed languages. In Ghana and a few other African countries, the missionary work of Rev. Dr. Andrew Foster later became government projects and Deaf education had support of the government (Kiyaga & Moores, 2003). We believe that the government has the primary role of ensuring equal educational opportunities for all. Basic education and (recently, in 2017) senior high school is free in all government institutions in Ghana but access to this education is sometimes impeded by other logistical factors including the following: Inadequate classroom units, inadequate funding from government, lack of trained personnel to work in special education schools, and lack of teaching and learning materials.

We acknowledge the fundamental roles of private institutions in Deaf education through donations of various kinds, medical and social outreaches, volunteering, among others. The creation of Deaf churches and Deaf units in several communities in Ghana have led to GSL development for Deaf people who have not had access to formal education. A few groups use a mixed version of American Sign Language (ASL) and GSL and this is exemplified in religious sessions in Adamorobe (Edward, 2015b). In as much as the private institutions have contributed to growth and development of Deaf education and language, we also caution for a systematised

approach that will ensure that the beneficiaries of these private interventions are not given a “diluted” version of either AdaSL or GSL.

From our data, language development and education (training) is tied to socio-economic development of Deaf Adamorobeans. We advocate that language centres should be created by government and other non-governmental institutions that would train uneducated Deaf Adamorobeans in AdaSL, GSL, and English. This attempt would aid in ensuring that they gain access to facilities and jobs that are opened for deaf people who are able to read and write.

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References

Ajavon, P. A. (2006). *An overview of deaf education in Nigeria*. Hamburg, Hamburg University.

Akanlig-Pare, G. (2013). Talking Hands, Listening Eyes: explaining the Nature, Structure and Status of Ghanaian Sign Language. *Inter Faculty Lecture Series*, University of Ghana, Legon.

Akanlig-Pare, G. (2014). A Phono-syntax of Ghanaian Sign Language. *New Perspectives on Humanity: Beliefs, Values and Artistic Expressions*, 135-150. Adwinsa Publications. Ghana.

Akanlig-Pare, G. & Edward, M. (2020). Societal Perception of Hearing Impairment in Ghana: A Report on Adamorobe. *Lancaster University Ghana Journal on Disability*, 2, 62-84. Lancaster University Ghana.

Amedofu, G. K., Ocansey, G., & Antwi, B. B. (2006). Characteristics

of hearing-impairment among patients in Ghana. *African journal of health sciences* 12(3), pp. 87-93.

Ametepee, L. K., & Anastasiou, D. (2015). Special and inclusive education in Ghana: Status and progress, challenges and implications. *International Journal of Educational Development*, 41, 143-152.

Asonye, E., Asonye, E. A., & Edward, M. (2018). Deaf in Nigeria: A Preliminary Study on Isolated Deaf Communities. *Sage Open*. Volume: 8 issue: 2, Article first published online: July 2, 2018. <https://doi.org/10.1177/2158244018786538>

Avoke, M. (2001). Some historical perspectives in the development of special education in Ghana. *European Journal of Special Needs Education*, 16:1, 29-40. DOI: 10.1080/08856250150501789 <https://doi.org/10.1080/08856250150501789>

Edward, M. (2018). Behind the veil: The impact of deafness on rural livelihoods in Ghana (Case study of a Deaf couple in Adamorobe). In *Lancaster University Ghana Journal of Disability (LUGJD)*. Vol 1.

Edward, M. (2015a). *We speak with our hands and voices”: Iconicity in the Adamorobe Sign Language and the Akuapem Twi (Ideophones)* (Master's thesis, The University of Bergen). <http://bora.uib.no/bitstream/handle/1956/9977/132685978.pdf;sequence=1>

Edward, M. (2015b). Signing out: Linguistic contact and possible endangerment of the Adamorobe Sign Language. Presented at the BAAL language in Africa SIG annual meeting on 22nd May 2015 at Aston University, Birmingham.

Hamelmann, C., Amedofu, G. K., Albrecht, K., Muntau, B., Gelhaus, A., Brobby, G. W., & Horstmann, R. D. (2001). Pattern of connexin 26 (GJB2) mutations causing sensorineural hearing impairment in Ghana. *Human mutation*, 18(1), 84-85.

Johnson, R. E., Liddell, S.K. & Erting, C.J. (1989). *Unlocking the Curriculum: Principles for Achieving Access in Deaf Education. Working Paper*, 89-3.

Kelsell, D. P., Dunlop, J., Stevens, H. P., Lench, N. J., Liang, J. N., Parry, G., Mueller, R.F. & Leigh, I. M. (1997). Connexin 26 mutations

in hereditary non-syndromic sensorineural deafness. *Nature*, 387(6628), 80.

Kiyaga, N. B., & Moores, D. F. (2003). Deafness in Sub-Saharan Africa. *American annals of the deaf*, 18-24.

Kubba, H., Macandie, C., Ritchie, K. & Macfarlane, M. (2009). Is deafness a disease of poverty? The association between socio-economic deprivation and congenital hearing impairment. *International Journal of Audiology*, 43:3, 123-125. <https://doi.org/10.1080/14992020400050017>

Kusters, A. (2012a). "The Gong Gong Was Beaten"—Adamorobe: A "Deaf Village" in Ghana and Its Marriage Prohibition for Deaf Partners. *Sustainability*, 4(10), 2765-2784.

Kusters, A. (2012b). Adamorobe: A demographic, sociolinguistic and sociocultural profile. *Sign languages in village communities: Anthropological and linguistic insights*, 347-352.

Kuwornu-Adjaottor, J. E. T. (2011). Spirituality and the Changing Face of Evangelicalism in Ghana. *Ogbomosho Journal of Theology*, Volume XVI, No. 1, 2011. 109-126.

Kyle, J. G., Kyle, J., Woll, B., Pullen, G., & Maddix, F. (1988). *Sign language: The study of deaf people and their language*. Cambridge University Press.

Lucas, C. (Ed.). (1990). *Sign language research: Theoretical issues*. Gallaudet University Press.

Lane, H. L. (1992). *The mask of benevolence: Disabling the deaf community* (p. 104). New York: Knopf.

Lang, H.G. (2003). Perspectives on the history of deaf education. *Oxford handbook of deaf studies, language, and education*, pp. 9-20.

Livneh, H. (1982). On the origins of negative attitudes towards people with disabilities. *Rehabilitation literature*. https://pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?article=1021&context=coun_fac

Marschark, M., & Harris, M. (1996). Success and failure in learning to read: The special case (?) of deaf children. *Reading comprehension difficulties: Processes and intervention*, 12, 279-300.

Mathers, C., Smith, A. and Concha, M. (2000). Global burden of

hearing loss in the year 2000. *Global burden of Disease*, 18(4), pp. 1-30.

Miles, M. (2004). Locating deaf people, gesture and sign in African histories, 1450s-1950s. *Disability & Society*, 19(5), pp. 531-545.

Morley, L., & Croft, A. (2011). Agency and advocacy: Disabled students in higher education in Ghana and Tanzania. *Research in Comparative and International Education*, 6(4), 383-399.

Moseley, K. L. (1985). The history of infanticide in Western society. *Issues L. & Med.*, 1, 345.

Okyere A. D. & Addo M. (1994). Deaf Culture in Ghana. In: Erting, C.J., Johnson, R.C., Smith, D.L. and Snider, B.D., *The Deaf Way: Perspectives from the International Conference on the Deaf Culture*. Gallaudet University Press, Washington DC.

Opoku, M. P., Mprah, W. K., Owusu, I., Badu, E., & Torgbenu, E. L. (2016). Challenges in accessing education for children with disabilities in Ashanti and Brong Ahafo regions of Ghana. *Journal of Disability Studies*, 1(2), 61-68.

Pernia, E. M., & Quibria, M. G. (1999). Poverty in developing countries. *Handbook of regional and urban economics*, 3, 1865-1934.

Sackey, B. M. (1999). Women and health seeking behaviour in Religious Contexts: Reproductive and antenatal care in Ghanaian religious movements. A Case Study of the Twelve Apostles Church. *Research Review*, 15(2), 65-69.

Vermeerbergen, M. (2006). Past and current trends in sign language research. *Language & Communication*, 26(2), pp. 168-192.

Yuker, H. E. (1988). *Attitudes toward persons with disabilities*. Springer Publishing Co.

[1] This section is adapted from author number 1's ongoing PhD dissertation on Ghanaian Sign Language and Adamorobe Sign Language on "Iconicity as a pervasive force in language: Evidence from Ghanaian Sign Language and Adamorobe Sign Language"

[2] This interview was done in a similar research involving users of Ghanaian Sign Language (GSL). One requirement for a deaf child's

acceptance in deaf institutions is the proof of an audiological report that validates that the child is deaf or hard of hearing.

[3] A referendum on December 27, 2018 accepted the creation of 6 new regions in Ghana bringing the number of administrative regions to 16.

[4] Most of the uneducated members of the Deaf community in Adamorobe know few GSL signs.

[5] <https://www.ethnologue.com/language/ads>