

The Role of Parents in the Language Development of Children with Hearing Impairment

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Abstract

Language immersion from birth is crucial to a child's language development. Children with hearing impairment experience great difficulty in the acquisition and use of the spoken language. The majority of children with hearing impairment, mostly born to hearing parents, struggle to develop sign language because it is not the language of the home. They usually end up developing the home sign for survival. Social interaction, as well as the development of moral and social values, get affected. Hearing children acquire the language of the home from the environment because their utterances are continuously reinforced. The child with hearing impairment fails to acquire language because he or she cannot hear. Those born to non-hearing parents acquire sign language from their environments with ease for it is the language of the home. However, they struggle or find it impossible to develop the spoken language. It becomes apparent that parents must play a pivotal role in the child's language development, be it sign or spoken, since it is necessary for the acquisition of knowledge, social interactions and day to day communication.

Keywords: Hearing Impairment, Deaf, Hard Of Hearing, Language Development, Assistive Technology.

Introduction

Interactions between the typically developing child and his/her parents are mostly characterised by mutual responsiveness. Each individual initiates and reciprocates communication (Melum, 1982). Parents naturally echo the sounds made by their babies and take turns in making cooing and babbling sounds (Paul, 2009). Parents interact with their babies in ways that help them develop language. In fact, the babies acquire or learn language from parents and family members around them through constant exposure and interaction (Jung, 2000). The parents unconsciously teach and reinforce the child's utterances. A research carried out by Easterbrook and Baker (2002) emphasises that communication is learned and shared within the cultural contexts of the family. They go on to elaborate that parents are the primary people engaging and interacting with infants on a consistent basis. In other words parents represent the child's first and foremost primary means to access the language of the home.

When the child's language development is delayed or impaired, this communication process between the mother and child also becomes impaired (Melum, 1982). Many parents may not recognise that their child is deaf until he /she fails to meet the expected norms of development (Marschark, 1997). Furthermore, hearing loss in children often go undetected until the child is around 2 years old when it becomes apparent that he /she is not talking yet (Mroz, 2018). This is way beyond the critical period for the development of language and speech skills (Jung 2000). It follows that if a child fails to acquire language within the critical period then he /she has to be taught the language which he/she was supposed to have acquired naturally from the environment. The child's language acquisition and development becomes delayed.

When a diagnosis confirms a hearing impairment in the child, it has been generally observed in developing countries, and Zimbabwe is no exception, that parents may stop talking to the child due to anger, stress, ignorance and many other reasons. Instead they may start shopping around for a cure, delaying intervention in the process. Lang-Roth (2014) observes that such parents, often come from families with a low socio-economic status, may be single or the mothers may experience a low level of education. Lang-Roth (2014) elaborates that the quality of life depends not just on the socio- economic status of the parent but on the quality of social contacts as well as family networks. Some parents do not believe that the hearing impairment can affect their child significantly and they postpone or reject early intervention services (Cole, 2008). In these circumstances children with hearing impairment remain unidentified and this seriously affects their language development.

Several researches which are relevant to this presentation ought to be highlighted. Hart and Risley (1995) found out that children from low income families had vocabularies that were half the size of those from high income families. This clearly shows that not all parents are as committed to the role of language facilitator as others. Another study conducted by Laakso, Poikkeus, Katajamaki and Lyytinen (1999) on maternal sensitivity found out that mothers who were more sensitive and guiding at 14 months of age had children with more developed verbal comprehension at 18 months. The other group of mothers who were more attentive, motivating and sensitive to their children's emotional states had children who were more advanced in early intentional communication.

Vigil, Hodges and Klee (2005) carried out a study on how parents responded to the language abilities and inabilities of their children. It was discovered that parents of late-talking toddlers provided half the number of responses as compared to parents of children with normal hearing. These parents also gave less feedback, fewer expansions and less self directed speech. In some cases parents responded to their children's language delay by starting new topics instead of pursuing and maintaining the conversation at hand. Easterbrook and Baker (2002) report that when children with hearing impairment are presented with incomplete messages, in the absence of effective amplification, insufficient and unclear auditory input leads to delays in , or lack of the acquisition of a complete language system. The above results show that it is critical for parents to provide the appropriate models in the relevant modes to fully participate in the language development of their children with hearing impairment.

Language forms the basis of most learning, not only in the formal aspects of education, but also in the development of character, emotional state and social relationships among the children (Jung 2000). In other words, the acquisition of knowledge, self expression and socialization takes place through the use of a language. This not only places children with hearing impairment at a disadvantage, but it also leads to linguistic difficulties which

contribute to various communication barriers. Modler (2000) observes that the severity of hearing loss is significantly negatively related to language development, indicating that better hearing is associated with better speech and language acquisition and development. However, it is generally understood that language development is vital since it is the basis of all communication. Parents should strive to help their children with hearing impairment to develop and improve their language and communication skills so as to maximize their potential in life.

Language is an organized system of symbols that humans use to express and receive meaning (Kirk, Gallagher and Anastasiow 2006).

Hearing impairment is a term that refers to anyone who has a hearing loss significant enough to require special education, training and adaptation (Winzer 1996). It includes both deaf and hard of hearing. The individual has difficulty in hearing either in one or both ears or may not hear at all.

The term **deaf** refers to a profound or complete inability to hear. The sense of hearing is non-functional for the ordinary purpose of life (Sahu, 2002). The individual experiences total loss of hearing and is disabled to an extent that precludes the understanding of speech through the ear alone, with or without amplification. The individual uses sign language.

The term **hard of hearing** describes an individual with mild to moderate loss of hearing. The sense of hearing, although defective, is functional with or without a hearing aid (Winzer 1996). The individual relies on residual hearing to communicate through speech and speech-reading.

The impact of hearing impairment on the child's language development

Children are unique in many aspects and their hearing loss must be assessed and treated differently. Hearing impairment can impact on the child's growth and development and this usually depends on when the deafness was acquired as well as the degree of hearing loss. It follows that hearing impairment affects children differently. The different degrees of hearing loss have different impacts on the child's language and speech development, communication skills and learning abilities (www.edb.gov.hk2008). In addition, childhood hearing loss has major developmental impacts on the child's literacy, psychological functioning and academic achievement (Joint Committee of Infants hearing, 2000). It also affects the child's social development as well as moral values.

Hearing loss which occurs early in life prevents language development in its normal discourse since hearing is the primary sense to acquire the spoken language. A child with pre-lingual deafness experiences great difficulties in the acquisition and use of the spoken language. Because the child lost hearing before the acquisition of language and speech, this can create a communication barrier between the child and the hearing population (Kenya Society for Deaf Children, 2005). In other words, hearing impairment negatively impacts on the natural acquisition of language, speech and their development. The first three years of life are seen to be critical in language acquisition. Children with language deficits due to hearing loss generally exhibit difficulties in day to day functioning.

Hearing impairment limits a child's listening experiences and his/ her exposure to language and speech. The child becomes a poor listener.

Children are especially susceptible to ear infections like otitis media. In this condition middle ear fluid causes hearing loss for weeks or months following an infection. Ching, et al. (2011) observe that about 20% of the school children experience permanent hearing loss due to various congenital genetic and environmental causes. Maybe, the relevant questions to ask is what is it that parents of young children with hearing impairment should do to facilitate language development and what is it they do to impede speech and language development (Cole, 2008).

The role of parents in the language development of children with hearing impairment

It has been generally observed that parents must play an active role in their children's development. The parent child relationship is the most important context in which the children with hearing impairment learn language hence the social and literacy development unfolds www.hanen.org. In other words parents hold the key to early language acquisition for children with hearing impairment.

Over 90% of children with hearing impairment are born to parents who are hearing, who do not even recognise the child's hearing impairment or his or her attempts to a manual language (Kirk, Gallagher and Anastasiow 2006). The majority of these parents have had no meaningful interaction with people who are deaf prior to the birth of their child. The parents are shocked and even traumatized by the diagnosis of hearing impairment. This entirely different view and experience of the parents often leads to difficulties in parent child communication. They usually fail to support the child's efforts in language acquisition yet it is generally understood that parents must play an active role in their children's language development.

During the pre-linguistic period, children with hearing impairment and the hearing exhibit the same behaviours such as crying, making comfort sounds as well as babbling (Kirk et al 2006). During the babbling stage the child produces his/ her first sounds that resemble words and the parents reinforce and transform the sounds into words. It follows that hearing babies acquire language from parents and the family members around them through constant exposure and interaction (Jung 2000). If the baby cannot hear during the first six months of life, he/ she misses an important opportunity to develop language. However, what many parents do not realize is that the children's behaviours are innately programmed such that the babbling will appear whether the infant can hear or not.

Noam Chomsky, the pioneer of the nativist theory of language acquisition claimed that all humans are born with the innate capacity for language learning, that is, the language Acquisition Device (LAD) (Chomsky (1988). The basic assumption is that all children, including those with hearing impairment, have a genetic push to acquire language and they can do so in rich as well as poor language environments (Chomsky 1988). But normal hearing is essential for that to happen.

Jung (2000) observes that children with hearing impairment have the same innate capacity to learn language like the hearing child. However, they fail to acquire and develop language because they cannot hear their own vocalizations as well as the other sounds around them hence, there is no reinforcement. The fact that children with hearing impairment are able to communicate using sign language supports this view of an innate capacity to communicate.

Petitto and Marentette (1991) conclude that children are pre-wired to learn language and they do so by stimulating the environment through babbling. They further discover that children with deafness use babbling like hand gestures, mabbling, that are sign equivalents of speech sounds since their babbling does not develop into words. The parents with hearing impairment recognise these signs and begin teaching a sign language (Kirk et al, 2006). The innate language mechanism is so strong that the children who hear develop a spoken language while those with hearing impairment develop a sign system taught in the home or developed by the child himself.

The parents should immerse the child with hearing impairment in a rich linguistic environment to facilitate language acquisition and development. Parents go on to unconsciously teach and reinforce the language. The child should be allowed to participate in language facilitating activities and programmes (Kushalnagar 2010). The language learning patterns of children with hearing impairment and the hearing are the same. It follows that parents should always hold conversations with their little ones for them to develop language.

Children with hearing impairment need to be exposed regularly and frequently to good language models in both visual and auditory modalities from the time the hearing loss is detected (Kirk et al, 2006). The gestures or finger babbling of infants with hearing impairment are precursors to learning manual signs. Parents must recognise and reinforce the children's gestures in much the same way they would reinforce oral sounds. Children with deafness who are born to parents with hearing impairment acquire sign language just as quickly and with as much ease as children who are hearing acquire the spoken language.

Signals from the environment should help children with hearing impairment to create a language system. The parents may use environmental access such as pointing at objects, nodding or shaking the head or performing certain actions that show intentions and meanings (mnt/sdcard/download).

While children who are hearing can interact with their environment and listen to an adult commenting on it, children who are deaf have to switch their attention back and forth, which is an important component to language development (Bouvet, 1990). For this population, however, this becomes problematic. Furthermore, instead of playing with siblings and peers, in order to acquire childhood knowledge and skills, the child becomes a social isolate. The hearing parents have to teach language to the child with hearing impairment. This is an abnormal situation because children with normal hearing acquire language and speech from the environment (Bouvet, 1990).

To lessen these demands, the hearing parents can use certain strategies to make language more accessible to their children with hearing impairment. They should always remember to maintain eye contact with the child all the time, using facial expression and body language to show emotions. The child's attention to the caregiver should be reinforced (www.edb.gov.hk). To gain the child's attention, parents can break the child's line of gaze using a tap on the shoulder, or a wave of the hand and any other body movements, to allow language input.

In order to make language salient, the parents should use short simple sentences so that the child's attention does not have to be divided for too long. Changes in the pitch of the parent's voice, motherese, make it easier for the child who is hard of hearing to learn language (Kirk et al, 2006). Children with deafness may barely hear the pitch changes that parents use but they can put the same important changes into their signs, facial expression, faces and body language.

Always speak facing the child because the parents' lip movements, facial expression and gestures can help the child with hearing impairment to understand the parents' words. The caregiver should speak clearly, naturally and at a normal pace and avoid exaggeration of lip movements (www.edb.gov.hk). Do not shout because the child may think you are angry with him or her. The parent should make an effort to reduce divided attention by positioning him or herself and the objects within the child's visual field so that language and the objects can be seen at the same time. The objects should be labeled to facilitate language acquisition.

Throughout the day, there are ideal moments to give a child with hearing impairment an opportunity to acquire language. The parents can converse with the children during daily routines such as getting up, bathing, dressing and undressing, meal time, going to the market or visiting friends (Jung 2000). The phrases used during these activities have real meaning and parents can help in the development of vocabulary, meaningful language structures and communication skills in the child with hearing impairment. Parents should be consistent and avoid being in noisy environments when talking to the child (Kushalnagar 2010).

Hearing babies know when their parents are happy, worried, angry or excited from their voices, even when the baby cannot see the parent's face. However, the baby who is deaf needs to see the parent's facial expression and body movements in order to communicate. In many cases the baby is confronted with the parent's unhappy face due to the sudden diagnosis of hearing impairment (Bouvet 1990).

Children with hearing impairment, who are born to hearing parents, always experience problems in language acquisition as well as communication in general. Parents use the spoken language while the child is programmed to develop sign language. Typically these parents have had no exposure to sign language which is the most accessible language to the deaf (Weaver and Starner, 2010).

Mugari, Mabugu and Nyangairi (2015) in The Sign Language Variation Report for the Deaf Zimbabwe Trust narrate that most deaf individuals with hearing parents suffered isolation and loneliness in the home because there was no sign language knowledge. Basic home signs were created but these were not even adequate to transfer family values to the children with hearing impairment. Deaf adults reported that in most cases their families did not know how to communicate with them such that they had to spend most of their lives in silence. They could not follow what was happening in the home. The deaf individuals who were interviewed expressed that they only learned sign language when older, that is, 9 to 19 years when they joined special schools (Mugari, et al 2015). When asked further, the children with hearing impairment cite shortage of material resources for teaching sign language to young children. It becomes apparent that the hearing parents were not able to support sign language teaching to the younger members of the family. It was unanimously agreed that deaf adults should

provide sign language models to children born to hearing parents. There is a great need to create ideal learning tools like videos, websites and mobile phones for all parents to learn sign language.

Parents with hearing impairment develop sign language in their children with hearing impairment. It has been observed that children with deafness born to parents who are deaf surpass those children born to hearing parents with regards to academic performance because they are proficient in sign language, their mother tongue.

Technology

Parents should adopt a positive attitude towards the child's hearing impairment. They should encourage the child to make the most of his or her residual hearing by wearing a properly selected and adjusted hearing aid or relevant assistive technology for optimum amplification (www.edb.gov.hk).

Let the child receive appropriate and well structured auditory training to improve the child's ability to perceive. (www.edb.gov.hk). The advancement in hearing technology has increased the hearing capacity of these young children. Digital hearing aids and cochlea implants provide richer stimuli than ever if fitted early.

It has been widely acknowledged that children who are hard of hearing can acquire and develop spoken language if they are identified and fitted with appropriate amplification technology early in their lives (Clark 2007). It follows that all newly borns must be screened for hearing loss as early as possible.

Conclusion

Language plays a central role in the normal development of children and its importance cannot be over- emphasised. Since parents play a critical role in helping a child to learn language, they are typically the child's first and most important role models (Kushalnagar 2010). Parental communication skills are more significant predictors of positive language and academic development. Parents of children with hearing impairment can help bring up their children in a way that their all round development can be ensured. However, the lag in language acquisition and development and subsequent struggles experienced by some children with deafness are not solely attributed to hearing impairment. Some other factors may come into play. These need further investigations.

Of crucial importance to the young child's language development is the nature of the mother –infant interactions (Melum, 1982). It is out of this relationship that communication grows. Calderon (2006) supported the above view saying maternal communication skills are one of the most important factors contributing to the language development of children with hearing impairment leading to more advanced language, higher reading scores and fewer behavioural problems. Hearing parents of children who are deaf and hard of hearing may provide incomplete language models and less parent- child interaction. As a result, the language skills of children who are deaf and hard of hearing lag far behind those of hearing children of hearing parents. Parents who hear should learn sign language to be able to provide appropriate language models and interactions to children with hearing impairment Weaver

and Starner (2010). The better the language skills of parents, the higher the chances of children succeeding in school and beyond.

The role of parents in the language development of children with hearing impairment is of crucial importance in that it provides children an opportunity to develop language which most of them fail to acquire during the critical period of language acquisition.

The following recommendations are made:

- Parents to be supported so that they positively accept impairments to enable early identification
- Parents to fully participate in children's early intervention programmes to promote language development
- Parents to work collaboratively with teachers and other professionals to improve the quality and quantity of interactions offered to children with hearing impairment
- Parents to learn sign language in order to enhance communication and the provision of appropriate mother to child interactions for the deaf and hard of hearing.

Parents must continuously provide the appropriate language models to children with hearing impairment. They should start learning sign language as soon as they discover the child to be hearing impaired. However, even when parents may struggle to do this, they should expose the child who is deaf to good signing models to enhance language development.

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