

Communication, Language and Healthcare Delivery: A Mutually Inclusive Relationship

Kate Ndukauba
Adaeze Ngozi Ohuoba

Department of Foreign Language & Translation Studies (FLATS)
Abia State University
Uturu,

Ijeoma Nduka
Department of Community Medicine
Abia State University, Uturu
Nigeria

Abstract

It is said that “a problem shared is a problem halved”. One in need of healthcare would need to speak and communicate with a healthcare worker in order to be properly diagnosed and treated. The healthcare worker would also need to effectively communicate prescriptions and medical advice for recovery to his patient. What happens when there is a breach in communication as a result of language barriers? Language and communication barriers in healthcare delivery can have fatal consequences and thus, cannot be in anyone’s interest. This article outlines to what degree, language and communication can affect healthcare delivery as observed in selected Health Centres in Obot Akara Local Government Area of Akwa Ibom State, Nigeria. It also exposes other barriers predominant in rural areas and their resultant effects on healthcare delivery. Following the identification of the problems, it proffers strategies to overcome the barriers.

Key words: Language, Effective Communication, Communication barriers, Healthcare delivery.

1.0 Introduction

It is said that health is wealth. So, a healthy nation is a wealthy nation. Hence, the need to have a healthy population cannot be over-emphasized. Governments at various levels make huge investments into the health sector annually even though more is required. There is need for the implementers of government health programmes and the people, to work together, hand in hand for them to succeed. There must also be communication and understanding between them. There is no gainsaying the fact that lack of mutual understanding between health workers and the populace can make nonsense of government’s huge investment in the health sector, in the areas of human and materials resources, provision of facilities and equipment, and others.

It is common knowledge that in Nigeria, there is a multiplicity of languages. According to Translators without Borders, Nigeria is one of the most linguistically diverse countries in the world, with over 500 languages. The official language is English, but it is spoken less frequently in rural areas and amongst people with low education levels.

Language barriers are those impediments created or caused by differences in language. They hinder communication and mutual understanding, hence, objectives of whatever ventures embarked upon, become difficult to achieve. Language and communication barriers in healthcare delivery can have fatal consequences and thus, cannot be in the interest of either the people or the Government. When these barriers and their effects are identified, data collected and analyzed, then recommendations can be made towards their resolutions for the better health of Nigerians.

The researchers of this paper went to some Health Centres in Obot Akara in Akwa Ibom State of Nigeria to identify the effects of communication barriers in health care delivery in a rural area. This paper seeks to examine some of the communication barriers observed and their resultant effects on healthcare delivery. Following the identification of the problems, it will explore strategies to overcome the barriers.

2.0 Languages

Man's existence as a social being hinges upon his ability to communicate with his fellow man and his environment. While communication takes various forms, language has proven to be a key aspect, without which communication would be incomplete. Various definitions of language exist in contemporary world today. Language is a system of conventional spoken, manual, or written symbols by means of which human beings, as members of a social group and participants in its culture, express themselves (David and Robert 2019). This infers that language is a necessary tool for expression. The *Merriam-Webster Dictionary* classically defines language as "a collection of words, their pronunciations, and their combinations used and understood by a group of people". The Dictionary also defines it as "a means to communicate ideas, feelings, emotions, using conventional signs, sounds, gestures that have been widely accepted and understood". *Oxford Dictionary* on the other hand defines language as "a method of human communication, either spoken or written that consists of the use of words in a structured and conventional way". Therefore, language can be said to be the way and manner people in a community or geographical area communicate, that is standardized and widely accepted.

2.1 Usefulness of Language

The role of language in the society cannot be over-emphasized. Fromkin et al (2011:284) state that we live in a world of language because we are always talking and are talked to everywhere, every time even in our dreams. They believe that "the possession of language, perhaps more than any other attribute, distinguishes humans from other animals. Language is the source of human life and power.

Language is used in the family, in the work place, in religion, in education, in business, in health, in friendship or other social interactions. Language is part of our culture. It gives us our identity. According to Ndimele (2015), the culture of a people through the vehicle of language controls our behaviour. According to O'Grady, Archibold and Katamba (2011:1), language is at the heart of all things human. It is not just part of us, it defines us.

Through language, we express ourselves. We make known to others: desires, feelings and needs. We use it to teach, to pass on information even from generation to generation. Individuals use language as a means of expression, to express their sentiments, feelings, desires, problems in different aspects of life including health. It is a means of communication with peers, superiors, professional contacts and the interactions involved. Without language, it is difficult to imagine much significant social, intellectual or artistic activity taking place. Hence, language offers us the opportunities for communication.

Jakobson (1960:57) outlines six functions of language:

- 1) The referential function corresponds to the factor of context and describes a situation, object or mental state. The descriptive statements of the referential function can consist of both definite descriptions and deictic words. This can be seen as the patient describes how better or worse he/she feels to the doctor.
- 2) The poetic function focuses on "the message for its own sake" (the code itself, and how it is used) and is the operative function in poetry as well as slogans. This function happens for example when an elderly woman presents her health complaints in a poetic way. For example:
 - i. o na-arighari m arighari n'afò (it is crawling in my stomach),
 - ii. o na-aku m kpum kpum n'obi (it is hitting me in my chest, i.e. palpitation).
- 3) The emotive function {for self-expression} relates to the addresser (sender) and is best exemplified by interjections and other sound changes that do not alter the denotative meaning of an utterance but do add information about the addresser's (speaker's) internal state, e.g.

"Wow, what a view!"

"Hewuuu! O fighbue mu ooo!" (Ouch, I am in severe pains)

Ewoooo! Bianu oooo! (Oahh! Help!)
- 4) The conative function engages the addressee (receiver) directly and is best illustrated by vocatives and imperatives, e.g. "Tom! Come inside and eat!" Just like the doctor will tell the patient: Lie flat. Raise your leg. Open your mouth. Look at me. etc)
- 5) The phatic function is language for the sake of interaction and is therefore associated with the Contact/Channel factor. The Phatic Function can be observed in greetings and casual discussions of the weather, particularly with strangers. It also provides the keys to open, maintain, verify or close the communication channel:

"Hello?", "Hi" "Ok?", "Hummm", "Bye"...

These are normal greetings and discussions between health workers and their patients.
- 6) The metalingual (alternatively called "metalinguistic" or "reflexive") function is the use of language (what Jakobson calls "Code") to discuss or describe itself.

We note from the above that language is useful to express oneself and serves not just the speaker but the receiver as well. It is therefore safe to state that language is made for both the addresser and the addressee and for its purpose to be fulfilled, both parties should be able to benefit from the usage of the code (the language).

Here we can see that all the functions of language are necessary and are used in the interaction and consultation processes between the health worker and the patient.

Language is central to human existence. Psychologists posit that language is a cultural tool which differentiates man from animals. Use of language leads to the various fields of endeavor of man, from art to religion to science to business, etc. (Evans, 2014). Human activities such as transportation, healthcare, education, are all dependent on language. One can hardly find any human relationship devoid of the use of language since language allows for expression and transmission of complex ideas.

2.2 Benefits of Being Able to Speak More than One Language

The ability to speak more than one language comes with tremendous benefits. Language is a unifier. Speaking more than one language offers one the opportunity to connect, build a network, make friends and open oneself to a world of limitless possibilities.

Having said that language is a means of expressing oneself and that there are many languages in the world, it is therefore no brainer that to be able to communicate effectively with people whose native language is different from yours, one has to learn the other people's language.

We make bold to say, then, that learning other people's language is great for our social, economic, mental life. Additionally, we would want to see, through this research, how being bilingual or multilingual can benefit one's health.

2.3 Kinds of Language

2.3.1 Verbal Language:

One can say without doubt that verbal language is the most used form of communication. It is the spoken or written form of language. According to *Study Resources*, it is a system of spoken & written words where we use sounds and symbols to communicate. For him, verbal language consists of five important features:

1. Language is a system – Groups of elements, such as sounds and words, are arranged and work together to communicate
2. Language is symbolic – A symbol is something that stands for something else. Words are symbols for ideas, actions, objects, and feelings.
3. Language is conventional – This means that language is accepted by a large number of people.
4. Language is learned – Do we come into this world knowing how to speak a language? No, we learn the language of our culture over time.
5. Language changes – The English Language for instance is constantly changing and evolving. As a result, meanings can change over time.

Understanding differences in words and their meanings helps one to communicate effectively. Those meanings are communicated in 2 ways:

1. Denotation – This is the Dictionary definition of a word. Caution needs to be exercised nonetheless because a word may have multiple meanings.
2. Connotation – This is what the word means as a result of one's feelings and experiences.

2.3.2 Nonverbal Communication or Body Language

Nonverbal communication includes sign language and paralinguistics. Sign and gesture languages do not involve speech sounds, and are most often used in deaf communities, although it is also sometimes used by hearing people when they are unable to communicate verbally.

Speaking usually involves at least two parties in sight of each other. A great deal of meaning is conveyed by facial expression and movements and postures of the whole body especially of the hands; these are collectively known as gestures. The contribution of bodily gestures to the total meaning of a conversation is in part culturally determined and differs in different communities. The visual accompaniments and tone of voice elicit the main emotional response.

Just as there are paralinguistic activities such as facial expressions and bodily gestures integrated with and assisting the communicative function of spoken language, so there are vocally produced noises that cannot be regarded as part of

any language, though they help in communication and in the expression of feeling. These include laughter, shouts and screams of joy, fear, pain, and so forth, and conventional expressions of disgust, triumph, and so on, traditionally spelled ugh!, ha ha!, and so on, in English.

- Facial expressions: The human face is extremely expressive, able to convey countless emotions without saying a word. And unlike some forms of nonverbal communication, facial expressions are universal. The facial expressions for happiness, sadness, pain, anger, surprise, fear, and disgust are the same across cultures.
- Body movement and posture: Consider how your perceptions of people are affected by the way they sit, walk, stand, or hold their head. The way you move and carry yourself communicates a wealth of information to the world. This type of nonverbal communication includes your posture, bearing, stance, and the subtle movements you make.
- Gestures: Gestures are woven into the fabric of our daily lives. You may wave, point, beckon, or use your hands when arguing or speaking animatedly, often expressing yourself with gestures without thinking.
- Eye contact: This is an especially important type of nonverbal communication. The way you look at someone can communicate many things, including interest, affection, hostility, or attraction. Eye contact is also important in maintaining the flow of conversation and for gauging the other person's interest and response.
- Touch: We communicate a great deal through touch. Think about the very different messages given by a weak handshake, a warm bear hug, a patronizing pat on the head, or a controlling grip on the arm, for example.
- Space: Have you ever felt uncomfortable during a conversation because the other person was standing too close and invading your space? We all have a need for physical space, although that need differs depending on the culture, the situation, and the closeness of the relationship. You can use physical space to communicate many different nonverbal messages, including signals of intimacy and affection, aggression or dominance.
- Voice: It's not just what you say, it's *how* you say it. When you speak, other people "read" your voice in addition to listening to your words. Things they pay attention to include your timing and pace, how loud you speak, your tone and inflection, and sounds that convey understanding, such as "ahh" and "uh-huh." Think about how your tone of voice can indicate sarcasm, anger, affection, or confidence.

These various forms of non-verbal communication are clearly visible and understood, obvious, in hospital settings where you see pain, joy and all kinds of emotions displayed. Health workers need to understand them in order to know what to do for the sick and how to help them regain good health.

3.0 Communication

Communication comes from Latin *communicare* which means 'to share'. It has been defined by *Merriam Webster's Dictionary* as: "the act or process of using words, signs, or behaviors to express or exchange information or to express your ideas, thoughts, feelings, etc., to someone else." According to the online Encyclopedia, *Wikipedia*, communication is "the act of conveying intended meanings from one entity or group to another through the use of mutually understood signs and semiotic rules."

Worthy to note is that communication can either be written, spoken or demonstrated non-verbally and understanding of message is necessary for communication to occur.

In addition to verbal and non-verbal forms of communication, there is also visualization which involves the use of pictorials to convey messages e.g. graphs and charts, maps, logos, emojis (pictures, stickers) etc.

3.1 Components of Communication

The components of communication are:

- People - the sources and the receivers of messages. A source initiates a message and a receiver is the intended target of the message.
- Message - the verbal and non-verbal form of the idea, thought or feeling that one person (the source) wishes to communicate to another person or group of people (the receivers).
- Channel - the means by which a message moves from the source to the receiver of the message.
- Feedback - the response to the source message. No response or silence is equally feedback, as are restless behavior and quizzical looks.
- Code - Verbal codes consist of symbols (words, phrases and sentences) and their grammatical arrangement. Nonverbal codes consist of all symbols that are not words, including bodily movements.
- Encoding and Decoding - Encoding is defined as the act of putting an idea or a thought into a code. Decoding is assigning meaning to that idea or thought.
- Noise - any interference in the encoding and decoding process that reduces the clarity of a message.

Communication occurs in a context i.e. a set of circumstances or a situation. This is influenced by the number of people involved. The contexts include Intrapersonal, Interpersonal, Public Communication and Mass Communication.

The primary aim of communication is understanding and it is achieved through effective communication. Effective communication is known as communication competence i.e. the ability to effectively exchange meaning through a common system of symbols, signs or behavior.

It is imperative to note that when communicating with people with disabilities, one should be patient, warm, flexible, supportive and also treat the individual with dignity, respect and courtesy.

4.0 Communication, Expression and Understanding in Healthcare Delivery

The ultimate objective of any doctor-patient communication is to improve the patient's health and medical care. Fong Ha and Longnecker (2010) rightly opines that the doctor-patient interaction is a complex process, and serious miscommunication is a potential pitfall, especially in terms of patients' understanding of their prognosis, purpose of care, expectations, and involvement in treatment. These important factors may affect the choices patients make regarding their treatment and end-of-life care, which can have a significant influence on the disease and the patient's recovery. Schyve (2007) adds that in the absence of comprehension, effective communication does not occur; when effective communication is absent, the provision of health care ends, or proceeds only with errors, poor quality, and risks to patient safety.

4.1 Healthcare Communication

Schyve (2007) explains that effective communication with patients is critical to the safety and quality of care and barriers to communication include differences in language, cultural differences, and low health literacy. He believes that evidence-based practices that reduce these barriers must be integrated into, rather than just added to, health care work processes.

As he further posited and rightly too, effective communication is communication that is comprehended by both participants; it is usually bidirectional between participants, and enables both of them to clarify the intended message. In the absence of comprehension, effective communication does not occur; when effective communication is absent, the provision of health care, as earlier stated, end - or proceeds only with errors, poor quality, and risks to patient safety.

A position paper submitted by the PEI French Language Health Services Network in collaboration with the Société Santé en Français, indicates that communication challenges have a negative impact on the following: access to treatment, participation in preventive measures, ability to obtain consent, ability for health professionals to meet their ethical obligations, quality of care, including - hospital admissions - diagnostic testing - medical errors, patient follow-up, quality of mental health care and patient safety.

For Meuter et al, when communicating the details of a diagnosis or treatment, it is crucial to convey accurately the likelihood of the associated risk factors. Failure to communicate properly the seriousness of risk can have negative consequences: patients may fail to comply with instructions or elect not to have potentially life-saving treatment.

(Bowen 2015:9) quoting (Jackson, 1998) rightly states that the importance of good communication between providers and patients has long been recognized: language has been described as medicine's most essential technology - the principal instrument for conducting its work. It has been observed that without language, the work of a physician (or other health provider) and a veterinarian would be nearly identical (Bowen 2015 cit Clark, 1983).

Three basic communication processes have been identified as associated with improved health outcomes: a) amount of information exchanged, b) patient's control of the dialogue, and c) rapport established ((Schyve, 2007 cit Kaplan et al, 1989). All of these processes are jeopardized in language discordant encounters.

4.2 Effect of Communication in Healthcare Delivery

Let us consider the effect of communication in the following healthcare delivery:

Symptoms: For a patient to effectively describe the symptoms being experienced, effective communication with his health care provider is expedient. A language barrier can impede flow of information and make it difficult to benefit from proper health care.

Diagnosis: A *Landmark U.S. Institutes of Medicine* publication, "Unequal Treatment" (Smedley et al., 2003), highlighted the importance of linguistic concordance in patient-provider communication as a means of obtaining an accurate medical/social history. This medical history is crucial to the choice of appropriate examinations and diagnostic

tests. Communication barriers compromise the power of the medical interview, often resulting in increased reliance on laboratory or imaging tests or incorrect test ordering. Poor communication in the medical encounter can result in an incomplete or inaccurate history, misdiagnosis, a treatment plan based on misinformation, and poor understanding on the part of the patient of his condition and the prescribed treatment. There are documented cases reported in the media where a language barrier resulted in misdiagnosis and serious injury. For example, in one case, language barriers were identified as a contributing factor in the death of a pregnant Vietnamese woman (Bowen 2015:14 cit Walton, 1990)

Prescriptions: Even if a condition is appropriately diagnosed, language barriers can contribute to poorer disease management, and outcomes. For example, when a language barrier is present, patients are less likely to be adequately counseled on health management routines like diet and physical activity.

Another often-overlooked source of language disparities is the decreased opportunity for language minorities to participate in clinical trials. There are three issues related to common barriers to linguistic minorities participation in clinical trials: a) those with limited English proficiency may have less access to cutting edge treatment; b) if language barriers are not appropriately addressed, issues of consent and identification of adverse effects may be compromised, and c) failure to include the diversity of the population in such trials may decrease the usefulness of the research to patients as a whole. (Bowen 2015:15)

Dosages: Another critical area of safety relates to medication use. There is strong evidence of the increased risk of medication error among those who face language barriers. Dozens of studies have found decreased comprehension, adherence, and less than optimal control of symptoms, along with increased risk of complications when a language barrier is present ((Bowen 2015:19 cit Dilworth et al., 2009). Patients with language barriers also have more difficulty understanding labels and side effects of medications.

Drug Composition; Due to allergies to certain components of a drug, it is very crucial that a patient understands the composition of any medication that is to be administered to him. This understanding could be impeded by language barrier and could lead to disastrous consequences.

Side Effects: A six-hospital study by the U.S. Joint Commission analyzed adverse effect data on English speaking patients and patients with limited English proficiency. The study found that over 49% of adverse experienced by patients with limited English proficiency involved some physical harm, whereas only 29.5% of adverse events for patients who speak English resulted in physical harm. Of those adverse events resulting in physical harm, 46.8% of the limited English proficient patient adverse events had a level of harm ranging from moderate temporary harm to death, compared with only 24.4% of English-speaking patient adverse events (Divi et al., 2007). They thus concluded that language barriers appear to increase the risks to patient safety. It is important for patients with language barriers to have ready access to competent language services.

Language barriers do not always result in medical error: they may result in more cautious treatment. The small literature on the impact of language barriers on healthcare utilization suggests that many providers take additional precautions while caring for a patient when a language barrier is present, resulting in additional laboratory and imaging testing, longer length of stay in the ward; or increased likelihood of admission. While these actions increase safety for the patient, they may be working against the quality dimension of “efficiency”.

5.0 Barriers against Effective Healthcare Delivery in Obot Akara

5.1 Linguistic barriers that obstruct efforts designed to improve the health of the people as identified in Obot Akara.

Vocabulary: One of the linguistic barriers that obstruct efforts designed to improve health is limited vocabulary due to low literacy levels. Consequently, patients might find it difficult to appropriately express themselves or read and comprehend written medical instruction.

Pronunciation: Good pronunciation is very vital for effective communication to occur. This is because, poor pronunciation can lead to an intended message being misunderstood. Dialectic tones can influence intonation and proper pronunciation and this was very evident among the Annang speaking people in Obot-Akara.

Grammar: Low literacy levels affect grammar quality and this is rampant in rural areas like in Obot-Akara.

Register: If patients lack the knowledge of proper terms to describe symptoms, there might be misinformation and this might affect all aspects of health-care delivery.

Even though the above mentioned are linguistic barriers that can hinder good healthcare delivery, the hinderance encountered was minute because the healthcare workers speak same language and have same intonation as the patients

so they were able to understand the patients. Also, majority of the patients understand pidgin English and clinics are run in their native language while they make explanations in pidgin to those who do not understand the local language.

5.2 Other Non-linguistic Factors that Hinder Effective Healthcare Delivery

The researchers identified some other barriers that hinder effective healthcare delivery in the following areas:

Cultural: In Obot Akara, people still do not wish to have twins or multiple births because of cultural bias. The family concerned have to appease the gods. Hence, when they discover they are expecting twins, they avoid hospitals.

Social: Obot Akara people prefer to go to the market on market days instead of keeping their appointments with the Health Centres. If at all they would keep it, it is after the market hours or at their convenience.

Religious: The researchers came across a prayer house run by a traditional birth attendant. The owner of the prayer house had patients of different categories including psychiatric cases and other ailments. The people believe so much in these prayer houses to the neglect of the Health Centres.

Others include:

Access roads: If there are poor road networks, it will pose a challenge to health workers to be at the health care centres on time, it would also make accessing the health care centres difficult for patients. The roads in Obot-Akara are fair and thus do not pose much problems.

Proximity: Health care centres that are in close proximity to patients are essential especially in times of health emergencies. In Obot Akara, there are sufficient number of health care centres in close proximity to patients.

Disability: Disabilities, especially those of sight, speech and hearing can hinder proper communication, understanding and health care delivery. These disabled persons often have to rely on support/assistance from others.

Staff attitude: If health care workers are not courteous, lack empathy, warmth and sympathy, most patients would keep away from the health care centres. Patients could decide to frequent a health care centre as a result of great services from staff. In our study, 60% of our respondents attributed their choice of health care centres to staff attitude.

Preferences: Individual patient's preference for age, sex, and or experience of a healthcare provider can influence access to health care delivery in provided health care centres.

Inadequate number of health care workers: Adequate number of health care workers is needed to ensure workplace efficiency in health care centres. There were not enough health care workers in about 83% of the health care centres in Obot-Akara

Inadequate health care facilities: If health care facilities are insufficient or unavailable, efficient health care delivery is affected. There are an adequate number (about 21) of health care facilities in Obot-Akara.

6.0 Causes of the Problems

Lack of enlightenment: If patients are not properly enlightened, their social, cultural or religious beliefs may hinder their willingness to access available health care services. This was observed in Obot Akara as some preferred their traditional birth centres.

Illiteracy: Lack of education and literacy can also be a factor that affects willingness and ability to access adequate health care services.

Cultural and religious beliefs: Some cultural and religious beliefs mostly found in rural communities like Obot Akara, prevent some individuals from accessing conventional health care services.

Financial difficulties: Some people might be restrained from accessing proper health care services due to poor finances. Some of the indigenes complained of cost, especially pregnant women. Being a rural area, most of the indigenes are peasant farmers and only a handful are gainfully employed.

Language disparities: If the language of the health care provider and the patients are different, they would not be able to understand each other and this would hinder adequate health care delivery. The study shows that majority of patients prefer their mother tongues for ease of communication.

7.0 Summary and Recommendations

From our interactions and experiences during our research, we observed the following:

- Most patients prefer to communicate in their mother tongue.

- Most of the health workers are bilingual speaking the local language and English/pidgin. Where they have patients who do not understand the local language the health workers themselves interpret into English though some of them are deficient in English language. To ease communication and improve awareness, medical posters are available in both pidgin and English language.
- On markets days, patients prefer to go to the market. They go for their appointment at the centres only if there is time later.
- The level of literacy is very low in the areas visited. Even the community health workers are barely literate. So, ignorance and illiteracy is a problem here.

It is therefore recommended that communication courses should be part of the training of health workers at all levels. There has to be refresher courses from time to time. Adequate training is also recommended for the health care providers so as to improve their service and competence especially in handling disabled patients who may not be able to express themselves verbally or understand what the other person is saying. Patients feel at ease with health workers who understand them and choose health care centres as a result of the awesome services rendered by health care professionals.

The government should also not relent in providing affordable education for its citizens so they can be able to communicate better. The government can also assist rural areas with more health care providers and better facilities to improve health care service. At the secondary level of education, students should learn the three major languages in Nigeria. Employment of Translators and interpreters to work with health workers is recommended.

8.0 Conclusion

Linguistic, Social, religious, cultural and financial factors have been found to be major barriers to effective healthcare delivery. Albeit being affected by a lot of factors, the findings from this study show that communication, language and healthcare delivery share a mutually inclusive relationship as language and communication play a vital role in effective healthcare delivery. It is thus expedient that both the government and people work together to eliminate or minimize these barriers to the barest minimum so as to achieve great healthcare service. The bilingual or multilingual competence of health care providers cannot be under-emphasized as this is necessary to ensure their utmost service to patients. The need to enlighten the populace was also identified so as to improve their ability to embrace conventional health care. As the area of study didn't have much multiplicity of language and there was little language disparity, we believe further research could throw more light on language barriers in healthcare delivery.

Funding: This work was supported by the Tertiary Education Trust fund (TETFUND), Nigeria

References

- Batalova J, Zong J. (2016). Language Diversity and English Proficiency in the United States. *The Online Journal of the Migration Policy Institute*. November 2016. <http://www.migrationpolicy.org/article/language-diversity-and-english-proficiency-united-states>.
- Binder P, Borne Y, Johnsdotter S, (2012). Shared language is essential: communication in a multiethnic obstetrics care setting. *J Health Commun* 12 (17),1171-1186.
- Bowen, Sarah, (2015). *The Impact of Language Barriers on Patient Safety and Quality of Care*. For Société Santé en Français. August, 2015.
- David, C. and Robert, H. R, (2019). *Encyclopedia Britannica*. 10/01/2019. <https://www.britannica.com/topic/language>. Accessed 07/02/2019.
- Divi C., Richard G.K, Stephen P.S, Jerod M.L.,(2007). Language proficiency and adverse events in US hospitals: a pilot study". *Int J Qual Health Care*. Apr;19(2), 6-7. doi: 10.1093/intqhc/mzl069. Epub 2007 Feb 2
- Fong Ha, J. and Longnecker, N., (2010). "Doctor-Patient Communication: A Review". *The Ochsner Journal*. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3096184/>. Spring; 10(1), 38-43.
- Fromkin, V., Robert R. and Nina H., (2011). *An Introduction to Language*. Wadsworth congage learning.
- Health and Human Services. *Guidance to Federal Financial Assistance Recipients Regarding Title VI Prohibition Against National Original Discrimination Affecting Limited English Proficient Persons*, 67 Fed. Reg. 41,455, 41,459 (June 18, 2002). <https://www.hhs.gov/civil-rights/for-individuals/special-topics/limited-english-proficiency/guidance-federal-financial-assistance-recipients-title-VI/>
- InternetArchiveBot. "Communication.". *Wikipedia*, 10th June, 2017, www.wikipedia.org/wiki/communication. Accessed 11th June, 2017.

- Ireland, Kay. "How does the Internet Affect Human Communication?" <https://www.techwella.com/articles/how-does-the-internet-affect-human-communication>. Accessed 12th June, 2017.
- Jakobson, Roman. (1990). *On Language*. Cambridge, Mass: Harvard University Russian Language Project.
- Johnson MR. (2004). *Cross-cultural Communication in Health*. Clin Cornerstone. 04 (6),50-52.
- Kuo DZ, O'Connor KG, Flores G, Minkovitz C.S.,(2007). "Pediatricians' use of language services for families with limited English proficiency". *Pediatrics*. 119, 920-927.
- Language Data for Nigeria – Translators Without Borders. translatorswithoutborders.org/language
- Merriam- Webster.Com Dictionary*. <https://www.merriam-webster.com/dictionary/communication>. Accessed 11th June, 2017.
- Ndimele, Roseline. (2015), *Understanding sociolinguistics*. Whytem Prints. Okigwe.
- O'Grady William, John Archibald and Francis Katamba. (2011) *Contemporary Linguistics. An Introduction*. Second edition. Pearson Education Limited. England.
- Moreno G., Morales L.S, 2010. "Hablamos Juntos (Together We Speak): interpreters, provider communication, and satisfaction with care". *J Gen Intern Med*. 10 (25), 1282-1288
- Schyve, Paul M.(2007) " Language Differences as a Barrier to Quality and Safety in Health Care: The Joint Commission Perspective". *J Gen Intern Med* 22(Suppl 2):360–361 DOI: 10.1007/s11606-007-0365-3..
- Study Resources. *Verbal language*. <https://studyres.com/doc/14700390/verbal-language>. Accessed 16/03/2021
- Zuniga GC, Seol YH, Dadig B, (2013). "Progression in understanding and implementing the cultural and linguistic appropriate services standards: five-year follow-up at an academic center". *Health Care Manag* 13 (32),167-172.