INTERPRETATION OF ENGLISH - LUBUKUSU MEDICAL DISCOURSE IN BUNGOMA COUNTY HOSPITALS - KENYA

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A Thesis Submitted in Partial Fulfillment for the Requirements of the Award of the Degree of Doctor of Philosophy in Applied Linguistics of Masinde Muliro University of Science and Technology

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DECLARATION

This thesis is my original work prepared with no other than the indicated sources and support and has not been presented elsewhere for a degree or any other award.

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CERTIFICATION

The undersigned certify that they have read and hereby recommended for the acceptance of Masinde Muliro thesis entitled, '**Interpretation of English - Lubukusu Medical Discourse in Bungoma County Hospitals – Kenya.'**

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DEDICATION

To The God of Abraham, Isaac and Jacob, the source of all wisdom. To my beloved daughter Ellish Wise, that you may learn that the fear of the LORD is the beginning of wisdom. To my parents, papa Joel Masika nende mayi Scholastic Naliaka.

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ABSTRACT

In this age of massive travel and migration, many doctors find themselves attending to patients with whom they do not share a common language. In such situations, interpretation is employed to bridge the linguistic gap in this vital communication. This study investigated the interpretation of English-Lubukusu medical discourse in a non-native doctor and a Bukusu patient consultation in Bungoma County Hospitals in Kenya. The specific objectives of the study were to: establish the interpretability of English medical terminologies into Lubukusu, identify the interpretation strategies employed by interpreters in a non-native doctor-Bukusu patient consultation discourse, identify constraints in the interpretation events and ascertain whether there is loss or gain of meaning in English-Lubukusu medical interpretation. The analytical research design was adopted in the study. The consultants for the study were selected using purposive sampling technique that targeted two non-native doctors at the Bungoma County Referral Hospital and two non - native doctors at each of the selected five Sub-County hospitals in Bungoma County, their interpreters and twelve patients. For purposes of ethical considerations and patients' privacy, six nurses who are proficient in Lubukusu working at the health facilities and had interpreted for non-native doctors in consultations with Bukusu patients acted as patients in this study, referred to as Standardized Patients (SP). During data collection, some patients who were interested in the research requested to partake in the research. They signed the consent forms and were recorded in real consultations. Six SPs and six actual patients were used in this study. Sytematic random sampling was used to select the linguistic sample. Data was collected by use of questionnaires, audio-recording and observation. The researcher audio recorded two consultation sessions for every doctor with one patient or SP on different appointments and analyzed the data majorly by qualitative methods with some instances of quantitative analysis. The Pragmatic Model of Simultaneous Interpretation propounded by Setton (1999) guided the collection, analysis and interpretation of data. The results of this study reveal that there are English medical terms that have no equivalents in Lubukusu hence are non-interpretable. Interpreters in medical consultations encounter constraints and employ a number of strategies to overcome them. None of the interpreters involved in this study had had any formal training in interpretation. Consequently, cases of meaning loss were recorded whenever the interpreters failed to balance the use of strategies to overcome the constraints. This study recorded the highest level of equivalence in interpretation events by medical officers which gave rise to gain in meaning. It is hoped that the results of the study will inform both the County government of Bungoma and the government of Kenya on ways of ensuring the Kenyan citizens benefit most from the presence of the doctors from other counties and countries in the health facilities. The results of this study offer a variety of strategies that will maximize the outcome of the communication between doctors and nurses who do not share a language. The study recommends that the government trains and employs interpreters in health facilities where non-native doctors are posted to bridge the communication gap between the doctors and local patients who may not be proficient in English.

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ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
AL	Artemether- Lumefantrine
BC	Bungoma County
BCRH	Bungoma County Referral Hospital
D	Doctor
EVS	Ear Voice Span
FAO	Food and Agriculture Organization
HIV	Human Immunodeficiency Virus
I	Interpreter
KNBS	Kenya National Bureau of Statistics
KMPDB	Kenya Medical Practitioners and Dentist Board
LOT	Language of Thought
MTP	Medium Term Plans
NACOSTI	National Commission for Science, Technology and Innovation
NP	Noun Phrase
PMSI	Pragmatic Model of Simultaneous Interpretation
PR	Phonetic Representation

RT	Relevance Theory
SP	Standardized Patient
SPSS	Statistical Package for Social Sciences
SI	Simultaneous Interpretation
SL	Source Language
SU	Source Utterance
STI	Sexually Transmitted Infection
TL	Target language
TU	Target Language Utterance
UTI	Urinary Tract Infection
WHO	World Health Organization

OPERATIONAL DEFINITION OF TERMS

The following terms have been operationalized in this study.

Consultation: A session during which a non-native doctor converses with a Standardized Patient (SP) in which the SP shares their discomfort with the doctor and the doctor does a diagnosis.

Corona virus: A family of viruses that include the cold and SARS-CoV-2 which cause Covid-19

Covid-19: This is an acute respiratory illness in human beings caused by the corona virus characterized by severe symptoms of fever, cough, shortness of breath, tiredness loss of taste and smell, sore throat, headache and many others.

Equivalents: These are words in the target language that have corresponding meaning with specific words in the source language.

Fluency: The ability to understand what one hears in a given language code and speak consistentntly and understandably in a language.

Interpretability: The quality of a word or a phrase in a source language that allows it to be expressed sufficiently in a target language either by an equivalent term or an explanation.

Interpretation: Transferring meaning from the source language into the target language orally.

Medical discourse: All the linguistic output produced by the doctor and the SP or the patient during a consultation.

Non-native Doctor: A doctor working among the Bukusu people whose first language is not Lubukusu and who can neither understand nor speak Lubukusu.

Standardized Patient: A nurse who is proficient in both English and Lubukusu and has worked with non-native doctors and Bukusu patients and enacts the role of a patient in this research undertaking.

Strong language: The language of medicine that is characterized by heavy scientific jargon used by medical personnel.

Translation: Transferring meaning from the source language into the target language by written means.

Weak language: The ordinary language free from medical terminologies and used by everyone who is proficient in a language but who is not a medical officer.

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.1 Introduction

This chapter presents the preliminary sections of the study. A sub-section on the background to the study appears at the beginning of the chapter followed by the statement of the problem, the objectives of the study, the research questions, the research assumptions, the scope, the rationale and finaly the limitations of the study.

1.2 Background to the Study

Universal healthcare is one of the priority areas in the achievement of the Vision 2030. To achieve this agenda, the Kenyan government is working to ensure that there are enough personnel to provide quality universal healthcare coverage to all Kenyans. According to the Kenya Medical Practitioners and Dentists Board (2018), there are seven thousand three hundred and thirty- three (7333) practicing doctors in Kenya. Nine hundred and thirty- nine (939) are foreign doctors with temporary licenses. Kenya National Bureau of Statistics (2019) put the country's population at forty -seven million five hundred and sixty- four thousand two hundred and ninety -six (47,564,296). From the foregoing statistics a ratio of one doctor to six thousand four hundred and eighty- six people is attained yet the World Health Organization (2015) recommends that Kenya should have a ratio of one doctor to 1000 people (1:1000). These statistics leave a deficiency of 40,332 doctors, a discrepancy that made the government to hire doctors from other countries to bridge the gap in specialized service provision. Furthermore, many doctors in Kenya find themselves working in areas where the local community speaks a language which differs from the language they are proficient in. In the execution of their duties, these doctors definitely attend to patients who cannot express themselves in English language. How then do those

posted in areas where most of their patients speak purely Kenyan local languages cope with the doctor-patient consultation sessions?

According to Ndimele (1997), language is at the center of human communication and essentially a vehicle through which humans pass and receive information. Language is the channel through which all information is passed across from the patient to the doctor and from the doctor to the patient. Hence Language is so important in medical interaction that it cannot be overlooked. Doctors use language to communicate information to their patients and it is through language that patients can explain to the doctors what they feel and receive instructions from the doctors on how to manage or treat their ailments. Universal healthcare begins with patient's access to the right information. Important as it is, the issue of language and patient information has been taken for granted here in Kenya (Nyongesa 2012).

Discourse between doctors and patients has long been regarded as the vehicle by which much of the curing and caring of medicine is conveyed sometimes regarded as the art or heart of medicine (Debra & Judith 2006). Clear communication is vital to the success of any relationship especially the one that exists between a doctor and a patient. Any barriers that may hinder clear communication between a doctor and a patient should be lifted because lack of communication between doctors and patients may lead to misunderstanding, increasing the likelihood of errors in diagnoses that could risk the patient's health and to the doctor's vulnerability to malpractice litigation (Debra & Judith, 2006). It is essential, therefore, that efforts are made to make this important interaction as clear as possible. For the current non-native doctor-Bukusu patients' situation, interpretation becomes a key component in the interaction to ensure each party gets the exact message spoken by the other.

Doctor-patient interaction is one of the communicative situations in which the presence of an interpreter is increasingly required (Cirillo 2005). Studies have shown the need for interpreters to interpret from the voice of the language of medicine into the voice of the life world in a doctor patient interaction. The need for interpreters to interpret from the language of medicine into the language of ordinary life has been established. Such is a type of intra- lingual interpretation where the doctor and the patient speak the same language only that the doctor is using the "strong" language of science or medicine and the patient is using the 'weak' life world language used in ordinary life communication events by all who are proficient in a given language.

Raymond (2014) agrees with this assertion when he opines that when professionals interact with their clients, there is a considerable scope for communication difficulties and breakdowns, misapprehension, misunderstanding and complete incomprehension because they do not speak the same language. Wadensjö (1998) emphasizes the coordinating aspect of the interpreters' role, who, by virtue of their unique middle position and immediate access to anything available in t have the hard task of establishing, promoting and controlling connections between primary parties in conversation. These observations bring to light, in a greater way, the need for interpretation in a foreign doctor and native patient interaction.

A number of studies have been carried out on doctor-patient interaction (Wadensjö, 1998; Debra & Judith: 2006; Cirillo, 2005; Raymond, 2014; Ombati, 2018). These studies each touch on an important aspect of the doctor patient interaction. The studies emphasize the vital role that language plays in the interaction between doctors and patients. Researchers have critically investigated the role of interpreters in a variety of contexts, ranging from TV interviews (Wadensjö, 2008) to commercial interactions (Gavioli, 2009), in legal proceedings (Wadensjö, 1998) and medical settings (Bolden,

2000; Davidson, 2000; Bot & Wadensjö, 2004). Ombati (2018) studied the Pragma-dialectal role of mother language in reconciling traditional medicine and conventional medicine in medical disputes in Gusii medical consultations and observed that the mother language was a very important vehicle that arbitrated the conflict between traditional medicine and conventional medicine. This study re-emphasizes the irreplaceable role of Language in the field of medicine. The studies mentioned above have neither explored interpretation as a solution to the language challenges in medical interaction nor investigated the nature of interpretation between a non-native doctor and a monolingual native patient in a medical consultation. There was need for a study to investigate interpretation between English and Lubukusu a Kenyan native language in a medical setting.

Lubukusu is the native name for the language spoken by the Bukusu people. Lubukusu is a member of the macro-language Oluluhya from the Bantu group of languages spoken in western Kenya. A macro-language is basically a set of related languages that share a common "identity" even though speakers may not normally understand each other (Pyatt, 2008). The Luluhya macro-language comprises of nineteen languages most of them being mutually intelligible while some like Lubukusu and Luloogoli, being on the extreme ends of the continuum, are mutually unintelligible. The nineteen languages are Lubukusu, Lukhayo, Lumarachi, Lusaamia, Lunyala K, Lunyala B, Luwanga, Lumarama, Lukisa, Lunyore, Lulogooli, Lwitakho, Lwisukha, Lukabaras, Lutsotso, Lutiriki, Lutura, Lusonga and Lutachoni (Marlo, 2009; 2014; Mudogo, 2011; 2019). See the map in Figure 3. In terms of intelligibility, Lubukusu is closer to Gisu and Masaaba languages whose origin is Eastern Uganda than it is to other languages spoken by the Luhya group of people (Mutonyi, 2000).

Although aware of the controversial debate on whether the 'Luluhya group' refers to inter-related languages or to dialects of the same language, many studies have referred to them as languages (Sumba, 1992; Mutonyi, 2000; Marlo, 2009; Lewis et al. 2016; Mandillah, 2016; Masika, 2017; Mudogo, 2019). According to Lewis et al. (2015), Luhya is a macro-language with the various dialects now promoted to the status of distinct languages. Lubukusu is recognized as one of the sixty-seven languages of Kenya that are alive (Lewis et al. 2016). In this study, Lubukusu is considered as a language and not a dialect.

Koller (1989) defines translation as the result of a text-processing activity, by means of which a source-language text is transposed into a target-language text. By referring to the transposed material as a text, Koller implies that a translational process happens by written means as opposed to interpretation which according to Cerezo (2015) involves conveying the meaning of a source language (SL) by means of a target language (TL) in the oral modality both for spoken and signed languages. In this study transferring the meaning of the source language into the receptor language by written means will henceforth be called translation while transferring meaning from the source language into the target language orally will be called interpretation. This study investigated the transposition of oral utterances of doctors and patients in a medical setting from English into Lubukusu and vice versa which is interpretation. A lot was borrowed from translation studies in terms of approaches, methodology and data analysis techniques but there are conspicuous deviations owing to the oral and immediate nature of simultaneous interpretation.

A source language is the language in which the message to be interpreted was initially produced while the target language is the language into which the message is reproduced (Baker, 1992). The source language is a language which is to be interpreted

into another language. In one-way interpretation, the speaker makes utterances in Language A and the interpreter renders the utterance in language B. In this case language A is the source language while language B is the target language. Medical interpretation however does not assume a one-way or one directional flow of information. In medical interpretation, the interlocutors engage in a dialogue where each party speaks as they each take turns. In this study therefore, each of the two languages, English and Lubukusu acts as a source and a target language depending on the language of the speaker. When the non-native doctors speak to the patient, English is the source language and Lubukusu, the language into which the non-native doctor's English utterance is interpreted, is the target language. When the patients are talking to the non-native doctors Lubukusu becomes the source language and English becomes the target language.

Scholars have investigated various issues concerning the translation of texts from English into Kenyan languages (Njeru, 2015; Wambui, 2015), and from English into Luhya Languages (Mudogo, 2011 & 2019; Wangia, 2008 & 2014) noted tremendous challenges to the process. Since interpretation is characterized with immediacy, a feature that makes it more challenging (Cokely, 2020) there was need to find out how interpreters in this language situation cope with the challenges noted by the scholars. The present study focused on the medical setting and investigated the interpretation process in the interaction between a non-native doctor and a Bukusu patient who is not proficient in English in Bungoma County.

Bungoma County borders the Republic of Uganda to the West, Busia County to the South West, Kakamega to the North East and Trans Nzoia County to the East. The County has a population of 1,670,570 people (KNBS, 2019). Majorly the County is occupied by the Bukusu people who speak mainly Lubukusu. There are other people

in Bungoma County whose native language is not Lubukusu. Although these are a minority and most of them speak Lubukusu alongside their original tongues, they were not targeted by this study. This study targeted the native Bukusu people who are a total of 1,470,100 (Lewis et al. 2016).

Language barrier continues to be a significant problem in the provision of quality universal healthcare. Many medical personnel find themselves working in environments where they have to attend to patients with whom they do not share a language. For instance, Kenya hired doctors from Cuba who spoke mainly English and posted them in all its 47 counties where they attended to bukusu patients who are not proficient in English. Similarly, there are Kenyan doctors who are posted in Counties where they do not understand the local languages spoken in these counties. These doctors may attend to patients speaking any one of the Kenyan local languages with no proficiency in English. How then do these non-native doctors communicate with their patients during consultations? Interpretation becomes an essential tool in ensuring that communication between the non-native medical officers and Kenyan patients who are not proficient in English is successful.

1.3 Statement of the Problem

Universal healthcare starts with accessibility to correct information disseminated by the medical staff to the patients. The government of Kenya employs Kenyan doctors to work in communities that speak different local languages from their own and are often not proficient in the regions' majority language. Also, doctors from other countries are employed to complement the already practicing doctors in Kenya in order to have enough personnel involved in the provision of health services. These non-native doctors deployed to various hospitals in each of the Kenya's 47 counties have to attend to patients whose language they do not understand, and this necessitates the

need for an interpreter during the doctor-patient interaction. The quality of a diagnosis depends on the ability of the doctor to understand the symptoms described by the patient, and the patient's ability to understand the doctor's questions and respond to them appropriately.

This important interaction between a doctor and a patient depends entirely on the comprehensibility of each party's language. However, the differences between Lubukusu and English, the language spoken by the non-native doctors, make it difficult for interpreters to attain the required level of equivalence in interpretation. These difficulties in interpretation may lead to loss of source language meaning and inadequate or inaccurate diagnosis that may endanger the patient's life and the doctor's integrity. This study sought to establish the degree of interpretability of English medical discourse into Lubukusu in a non-native doctor - Bukusu patient consultation. The study goes further to suggest ways of dealing with the interpretation constraints exhibited in order to improve the outcome of the doctor-patient consultations.

1.4 Research Objectives

The objectives of the research were:

i. To determine the degree of interpretability of English medical terminologies into Lubukusu in Bungoma County.
ii. To describe the constraints encountered in the interpretation of English-Lubukusu medical discourse.
iii. To establish the interpretation strategies employed in English-Lubukusu medical discourse.
iv. To find out whether there is loss or gain of meaning in the interpretation of English-Lubukusu medical discourse.

1.5 Research Questions

The study sought to answer the following research questions:

i. To what degree are English medical terminologies interpretable into Lubukusu?
ii. What constraints are there in the interpretation of English-Lubukusu medical discourse?
iii. Which interpretation strategies are employed in EnglishLubukusu medical discourse?
iv. What degree of loss or gain of meaning is incurred in the interpretation of English-Lubukusu medical discourse?

1.6 Assumptions of the Study

i. There are English medical terminologies that have no equivalents in Lubukusu.
ii. Interpreters in a non-native doctor Bukusu patient consultation encounter constraints.
iii. Interpreters in Bungoma County Hospitals employ certain strategies in medical interpretation.
iv. There is loss or gain of information in the interpretation of English-Lubukusu medical discourse in Bungoma County.

1.7 Scope of the Study

This study is cast in the field of interpretation, a sub-branch of Applied Linguistics. Applied Linguistics is one of the branches of Linguistics. The study focuses on medical interpretation, examining interpretation in medical consultations. It evaluates interpretation of medical discourse at the lexical level using words as units

of analysis. The study was designed to determine and describe interpretation strategies used in a non-native doctor-Bukusu patient consultation. In evaluating the interpretation strategies, the study stretches beyond the word level analysis to 'above the word level' of analysis in order to accommodate some interpretation strategies. It is important to note that there usually arises the need to have intra-lingual interpretation from the 'strong' language of medicine to the 'weak' language of the ordinary daily life. This study focused only on inter-lingual interpretation between the non-native doctors speaking English and monolingual patients speaking Lubukusu in medical consultation. The intra-lingual interpretation was not considered.

The study limited itself to certain hospitals in Bungoma County. The hospitals in areas where Lubukusu is dominantly used were selected by judgmental sampling. Hospitals in other Counties were not considered because it was unlikely to find Lubukusu speaking patients in these hospitals. This study investigated the interpretation strategies of English medical discourse in a non-native doctor Bukusu patient consultation. The two languages of interest were English and Lubukusu, therefore the viable setting for this study was Bungoma County. The study focused on Lubukusu speakers who are not proficient in English in Bungoma County in order to minimize the cost of hiring experts if the study had been focused on any other language. There are speakers of other languages such as Iteso, Saboath, Tachoni and other Luhya languages who are not proficient in English but these speakers of other languages were not considered for the study as this would require the services of language specialist in these languages. Lubukusu is the researcher's first language, a factor that made the collection and analysis of the data more manageable.

This study investigated interpretation and focused specifically on simultaneous interpretation in medical consultations. There are two main techniques of interpretation namely: simultaneous interpretation and consecutive interpretation. In Simultaneous Interpretation (SI), the interpreter renders the source language utterances orally into the target language at the same time as the communicator in the source language is speaking, with alternating time intervals of only a few seconds. SI is a continuous flow of speech in which listening and interpreting are synchronous and overlap each other. Consecutive interpretation on the other hand is a situation where the interpreter takes chunks of utterances. This involves a communicator speaking for a longer period of time say thirty minutes or so, then, the interpreter comes in to interpret the thirty minutes speech. This study limited itself to simultaneous interpretation and consecutive interpretation was not investigated.

The study was guided by the Pragmatic Model of Simultaneous Interpretation propounded by (Setton, 1999). There are other general approaches to interpretation such as the Expectancy Violation theory (Buller & Burgoon, 1996), Functional Equivalence theory (Nida, 1969) and the Functional Translation theory (Ehlen, 2005) but these were not applied in the study. This study was guided only by the tenets of the Pragmatic Model of Simultaneous Interpretation. Given that the research studied interpretation in a medical setting, the tenets of Pragmatic Model of Simultaneous Interpretation were the most appropriate.

Baker (1992) categorizes non-equivalence in five levels: non-equivalence at word level, non-equivalence above word level, grammatical non-equivalence, textual non-equivalence and pragmatic non-equivalence. There are different levels of linguistic analysis and each level is significant to interpretation as a strand of translation. Baker (1992) acknowledges the importance of individual words during the translation

process, she argues that the translator first looks at the words as single units in order to find their equivalent in the TL. Mudogo (2019) agrees with this assertion in his study of 'The Word Level Strategies used to attain Functional Lukabras Equivalence in the Translation of Mulembe F.M Luhya newscasts. Mudogo's focus on Lukabras equivalence at the word level was influenced by Baker's (1992) acknowledgement of the importance of individual words during the translation process. Interpretation and particularly simultaneous interpretation is characterized with immediacy. The action of carrying meaning from language A to language B happens at the same time as the speakers are uttering the discourses.

In view of this special feature that differentiates interpretation from translation, this study subtly deviates from earlier studies by combining two levels of analysis of non-equivalence (Baker, 1992; Mudogo, 2019). This study blends both the word level and above the word level analysis. Interpreters employ slightly different strategies from those used by translators. Some of the interpretation strategies may not be sufficiently analyzed at word level. This study mainly looks at words as units of analysis but takes a glance above the word level. The study stretches above the word level as a necessity to account for the full range of interpretation constraints such as time lag, paralinguistic cues, contextual, cultural and interpretation strategies such as reduction, addition and shifts which cannot be fully accounted for if the study was restricted at the word level. The other levels of analysis were not considered.

Finally, the study only focused on interpretation between English and Lubukusu in a medical setting. There are so many situations in which the natives' and non-natives' communication requires interpretation but these were not in the interest of the study. This study investigated interpretation strategies of English medical discourse in order to fill the gap in ensuring that the ordinary people access quality healthcare services

in a view to realizing the vision 2030. Access to healthcare begins with the patient's access to the right information. This study aimed at enriching the outcome of the consultation between non-native doctors and Bukusu patients. By so doing the monolingual Bukusu patients will get the right information and the non-native doctor will make the correct diagnosis leading to quality healthcare services.

1.8 Rationale for the Study

A number of studies have been done on doctor-patient interaction (Bolden, 2000; Davidson, 2000; Bot & Wadensjö, 2004). Most of these studies explore the role of an interpreter in a doctor - patient interaction within the same language. This kind of interpretation is known as intralingual interpretation. The present study adds to the existing knowledge on strategies of interpretation in general and in particular, the interpretation strategies employed in interpreting a doctor- patient discourse in situations where the doctor and the patient do not share a language. The results of this study shade light on the nature of interpretation in a non-native doctor- native patient consultation in Kenya. The present study explored medical interpretation between doctors and patients speaking two different languages: English and Lubukusu. It therefore contributes to the existing knowledge on medical interpretation by yielding information on interlingual medical interpretation.

This study dilates Setton's Pragmatic Model of Simultaneous Interpretation. Pragmatic Model of Simultaneous Interpretation was formulated by Setton R. (1999) as a model for interpretation and it has been applied to interpretation studies over the years. The present study focused on interpretation between English and Lubukusu, a Kenyan indigenous language, in essence applying the Pragmatic Model of Simultaneous Interpretation (PMSI) to an African setting. The study therefore provides a platform to try the applicability of this model in interpretation events involving a Kenyan native

language and English and on interpretation in domains of healthcare. In this way, the findings of the study add to the existing literature on Pragmatic Model of Simultaneous Interpretation.

The results of this study are important to policy makers in the health sector on the important role played by interpreters in a doctor-patient interaction. This will in turn help in making decisions on training specialists in medical interpretation and on the employment of trained interpreters in the medical facilities. Information from this study will inform non-native doctors on the importance of having trained interpreters as they handle patients with whom they do not share a language and on how to manage interpreted medical consultations.

Further, the present study is vital to the County government of Bungoma and to the Kenyan government in the provision of universal healthcare to all Kenyans. These findings are a form of feedback to the County Government of Bungoma and the Kenyan government on the progress of implementing universal healthcare to the residents of Bungoma County. Both the national and county governments will gain feedback on the progress of the integration of foreign doctors and doctors from other counties within Kenya in the communities where they were posted.

Finally, the results of this study will inform institutions that train interpreters and translators. Training institutions of translation and interpretation will get information about the current needs on translation and interpretation and subsequently tune their curriculum in line with the demands of the real-life interpretation practice.

1.9 Chapter Summary

In this chapter we have introduced the study by highlighting the key issues that form the background to the study. Further, a statement of the problem that informed the research has been made and the objectives of the study stated. The following chapter presents a critical review of relevant literature on which the entire study is built. The next chapter presents the literature review.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

This chapter reviews the existing literature according to the objectives of the study. It comprises a review of literature on the language situation in Kenya, language and healthcare, studies on interpretation, interpretability of medical discourse, constraints of interpreting medical terms, strategies of interpreting Scientific Terminologies, loss and gain in interpretation and finally the theoretical framework.

2.1.1 The Language Situation in Kenya

The colonial policy on language formed the basis for the current language situation in Kenya. The British introduced English in Kenya during the colonial period and elevated it to the status of Kenya's official language. Kiswahili was given the role of a national language and the native languages were utilized in informal settings (Kibui, 2014). Over time, a number of commissions have made recommendations that changed the role and status of these languages in Kenya. Barasa (2016) observes that the commissions' recommendations introduced a trilingual system in education where African languages were to be used in non-formal communication in relevant locations where the languages were dominantly spoken. This arrangement set out English as a language of the elite in Kenya making most Kenyans with little or no formal education to stick to the use of their native tongues in their day-to-day conversations. As opined by Barasa (2016), English is used mainly for government activities and by the educated; serving as a language of the people deemed to be influential and of high social class. Thus, there is a percentage of Kenyans who are not proficient enough in English to express themselves completely in the language.

The constitution of Kenya (The Republic of Kenya 2010) Article (7) outlines English and Kiswahili as official languages and Kiswahili as the national language. Cap3 (a) and (b) of this chapter of the constitution (2010) affirms the responsibility of the state to protect the diversity and promote the development and use of indigenous languages. This declaration subtly agrees with the works of (Skutnabb-kangas & Phillipson, 2017) that content:

> Linguistic rights should be considered basic human rights. Linguistic majorities, speakers of a dominant language, usually enjoy all those linguistic human rights which can be seen as fundamental, regardless of how they are defined. Most linguistic minorities in the world do not enjoy these rights... it is only speakers of official languages who enjoy all linguistic human rights. (Skutnabb-kangas & Phillipson, 2017 P. 28)

Both the Kenyan constitution and Skutnabb-kangas & Phillipson, (2017) advocate for a balance in the use of the languages of Kenya especially in non-academic forums with the aim of ensuring the layperson in Kenya has access to relevant information that touches on their livelihood. Majority of Kenyans use their native languages for in-group communication, Kiswahili for intergroup communication and English for official matters. Only a few Kenyans use English in their day-to-day activities (Nyongesa, 2012). Waitiki (2010) refers to English as a language of an educated few. There is a big population of Kenyans who are proficient in only one of the native Kenyan languages. It is therefore expected that most communication be done in a language that is fairly understood and used by the majority of the people. This important truth should constantly be borne in mind by government workers in all sectors especially in the medical field. This study envisaged a situation in which the

non-native doctors attend to Bukusu patients who were not proficient in English hence the need for good interpretation in such consultation discourses.

2.1.2 Language and Healthcare

Patient empowerment is an important facet in the provision of quality healthcare. Patient empowerment demands for patient information and involvement in making decisions about their own health. It entails giving patients information about health issues with the aim of optimizing the outcome of the entire treatment process (Raynor & Dickinson, 2009). Important as it is, the issue of language and patient information has been taken for granted here in Kenya (Nyongesa, 2012).

Now that the Kenyan constitution gives a level ground to English, Kiswahili and native languages, there is need to restructure the modes of communication to suit the literacy levels of the citizens (Nyongesa, 2012). Illiterate and semi-literate Kenyan citizens should have the freedom to express themselves in a language that they are most comfortable with without feeling that they are losing anything or that they are disadvantaged by using their native languages. The languages of literacy in Kenya are English and Kiswahili. A literate person is one who is able to speak and write in the two languages. Illiterate people are those who have no proficiency in the two languages. Speaking to such patients in a language they understand best and letting them express their needs in a language they are most proficient in forms an integral part of patient empowerment. Language is essentially the most crucial tool to be given attention if Kenya is to succeed in the realization of universal healthcare.

Language has been enlisted by research as one of the barriers that completely hinder communication in healthcare provision. Waitiki (2010) while assessing the challenges in the fight against HIV and AIDS noted that language barrier can completely impede

Doctor-Patient communication. A situation where a patient cannot communicate directly to the doctor in the language she/he is proficient in may lead to misunderstanding and misdiagnosis. According to Waitiki (ibid), this problem is most prevalent in multilingual nations like Kenya, where knowledge of either the national or the official language is a preserve of an educated few as observed also by Barasa (2016). In such cases, it is only prudent for the communication process to be mitigated by an interpreter. Although the mitigation processes might deny the patient confidentiality, this becomes a necessity especially in a foreign doctor -native patient interaction.

2.1.3 Interpretation

Interpretation involves conveying the meaning of a source text (ST) by means of a target text (TT) in the oral modality both for spoken and signed languages (Cerezo, 2015). Interpretation involves transferring an utterance orally from one language known as the source language (SL) into an equivalent utterance in a different language referred to as the target language (TL) retaining as far as is possible the content and the function of the original message. Interpretation is an activity that consists of transferring either simultaneously (known as simultaneous interpretation) or consecutively (known as consecutive interpretation) oral or gestural communication between two or more speakers who are not able to use the same set of symbols.

According to Qian (1994) interpretation is a form of communication between two people with different linguistic and cultural backgrounds. This definition ignores the role of the agent that facilitates the communication. It appears as though the two interlocutors are communicating by interpreting to each other. For interpretation to take place, an agent that understands the language of each speaker is involved.

Interpreters bridge the gap between the interlocutors who do not share linguistic characteristics. In medical consultations between non-native doctors and monolingual patients, there will always be a third party that shares linguistic characteristics with both the SL and the TL interlocutors. This third party that mediates between the different linguistic backgrounds is the interpreter and the process of mediation is interpretation. Interpretation is therefore the process of linguistic mediation between any two languages that are mutually unintelligible.

Interpreters are linguistic experts trained to move information between languages often in high-pressure situations (Davidson, 2001). Although Davidson does not capture the possibility of having untrained speakers acting as interpreters, his definition captures well the role of the interpreter. The interpreter acts as a key bridge that enables cross-cultural communication more so in multilingual contexts as is the case in Kenya Njeru (2015). It also provides further evidence for the roles that interpreters play in real-life interpreting. This study shows that interpreters not only assume the role of linguistic mediator, but also act as communicative mediator and cross-cultural mediator. Interpreters reproduce speech given in one language into another language orally. They have to bridge the linguistic and cultural gaps between the speaker and the listener. They are therefore social agents co-constructing the meaning of the interaction together with the speaker.

According to Angelelli (2000), the major goal of interpreting is that a message makes the same impact on the target audience as was intended by the speaker in the source language. This is why experienced interpreters do not only know more vocabulary, how to better control the voice, how to handle a wider variety of accents but they have more strategies for dealing with the unknown features of the two languages involved. Interpreting in a medical setting will therefore require the interpreter to render the

message of the source language speaker faithfully into the target language so as to engender a response in the target language audience similar to what the audience in the source language would have. Interpreting between a non-native doctor and a Bukusu patient requires an interpretation to elicit the same response in the non-native doctor as it would to a Lubukusu speaking doctor.

There are two broad modes of interpretation, simultaneous and consecutive depending on whether the TT is delivered roughly at the same time as the ST or after it. When the interpreter delivers the TT at the same time when the ST speech is ongoing with short time intervals of seconds we call this simultaneous interpreting. When the TT is delivered by an interpreter sometime after the ST speech is done then this is consecutive interpretation. Apart from these modes, interpreting can be classified into types depending on the socio institutional context in which it is performed. Some of the frequently discussed types are conference, community and media (Pollabauer, 2006). Community interpreting comprises legal and healthcare interpreting. The present study was of simultaneous interpreting mode and community interpreting type.

2.2 Interpretability of Medical Discourse

Language is a vital tool in health care provision. The doctor's accurate and timely access to proper information may distinguish between life and death. Medical language is the language spoken by medical experts; characterized by specialized vocabulary influenced mostly by Latin and Greek (Dzuganova, 2019. This language is closely related to technological development and science, two phenomena that are novel to local languages such as Lubukusu. This study sought to estalish the degree to which such scientific discourse is interpretable into a language that has not been sufficiently utilized in science.

Many discoveries have been made in the field of medicine and engendered the need to name diseases, symptoms, procedures, devices and medicaments. Information about the new discoveries has been published in English and "English has assumed the role of the international language of medicine" (Baethge, 2008:37). Pavel (2014) contends that English is the *lingua franca* of medicine and science in general. As such, the language of medicine offers challenges not only to interpreters but also to medical historians, linguists and medical students (Karwacka, 2015).

According to Dzuganova (2019), medical discourse is characterized among others by massive synonymy of various origins. For instance, pain can be denoted as: pain, ache, pang, prick, shoot, smart, sting, stitch, throe, tingle or twinge. The wrong use of synonyms can lead to misunderstanding and wrong interpretation. Synonyms are one of the challenges of medical interpretation. The heavy nominalization of verbs and adjectives and the use of technical words and phrases are other reasons that make it difficult for medical interpreters to achieve the required level of equivalence. Medical language uses massive extensions of nominal groups such as *immunodeficiency, dysregulation pro-inflamatory* etc (Karwacka, 2015) these extensive derivation of terms in medical language poses a real challenge to interpreters who may not have prior knowledge of such scientific terminology.

Argeg (2015) found out that translating medical terms from English into Arabic posed many challenges to the translators. Dealing with such specialized texts is not easy because several issues and factors affect these texts, such as style and terminological technicalities (Al-Abbas & Haider, 2021). As such, some scientific terms are simply lost in interpretation, while others are completely absent resulting in what we have called *uninterpretability*. To a large extent, this is due to the direct link between language and culture. Most languages and cultures in developing countries have had

limited access to the modernization in the world and struggle to understand scientific terminology linked to this progress. Those cultures that have been exposed to, or immersed in these developments, already have an in-depth understanding of terms, meaning and significance based within their culture so their language has adapted over time to these changes (Alhiyari, 2014). Thus interpreting from English, the *lingua franca* of science into Lubukusu a local language in a developing country is problematic.

Ghazalla (1995), defines scientific translation as the process of rendering terms from one language into another in the fields of science and technology from different domains. Nida (1964) observed that rendering scientific terms coined in advanced western countries into languages of third-world developing countries poses real challenges to interpreters. This is because interpreting scientific and technical terms does not only entail delivering the information correctly and accurately from the SL into the TL but also conveying the message in a way that quarantees recipients easy and effective understanding of the information (Byrne, 2006).

The roles of interpreters are perceived differently depending on the stakeholder or the setting (Mikkelson, 2013). The context and goal of interpretation determines the way an interpreter does his or her job. Interpreting in medical discourses is distinctively different from interpreting in law or in religious gatherings. In religious gatherings for instance, the interpreter has a one-way interpretation function running from one language to the other. In medical consultation, the communication process runs two way, the interpreter has to interpret from and into each language as the doctor and the patient keep conversing in the dialogue form. This two-way interpretation puts a heavy load on the interpreter because each of the interlocutors relies on the interpreter in order to pass information to the other.

Medical service providers such as medical officers' expectation is that interpreters do not simply function as pipes through which information passes but clarify and simplify information as required (Hale, 2007). Medical officers need interpretation solely for purposes of understanding the patient's condition in order to make appropriate diagnosis. The role of an interpreter in a medical consultation is therefore not just changing information from one language to the other but ensuring that each party of interlocutors gets the required information in a form that suits them best. Law professionals, on the other hand, expect interpreters to interpret verbatim even to a point of reproducing linguistic errors. The goal of interpretation in law is either to vindicate or inculpate someone so, any loss or ambiguity in interpretation can be costly. The goal of medical interpretation is to engender a response in the non-native doctor which can cause him to make the same diagnosis like that which a doctor who is fluent in the native language may have when listening directly to the patient and enable the doctor to make the correct diagnosis.

The role of interpreters within the medical encounter has been extensively examined by Davidson (2000) and Bolden (2000). The studies opine that interpreters in the medical field can neither be neutral nor invisible. Being neutral would mean that the interpreter faithfully transports the exact information from one language to the other, this is not all that an interpreter in a medical consultation does. In medical interpretation the interpreter repackages information a new before transmitting it to the target audience. They further note that interpreters edit patients' contributions, filtering out affective displays in order to make such contributions relevant to physicians' questions (Davidson, 2000). As noted by the studies mentioned, the interpreter is a vital agent in communication between medical officers and patients. They edit and

clarify the patient's information and pass it to the medical officer in a form that aids diagnosis. In the same event, interpreters simplify the doctor's message so that the patient understands what is clothed in heavy scientific terminologies.

Angelelli (2004) observes a different picture, in which interpreters become visible in an interaction by replacing one of the interlocutors. She sees interpreters through different lenses and describes them using various metaphors depending on the situation. Angelelli (2004) calls them detectives, multi-purpose bridges, diamond connoisseurs, and miners. This emphasizes the very important role that interpreters play in medical conversations. The competence of the interpreter therefore becomes key in the success of an interpreted doctor-patient interaction. Doctor-patient interaction is one of the communicative situations in which the presence of an interpreter is increasingly required (Cirillo, 2005). In the modern world which is characterized by migrations from one country to the other, numerous medical personnel find themselves working with patients with whom they do not share a language. Medical officers in such situations will always rely on the services of interpreters to understand their patients and offer correct diagnosis for the patients.

Hale (2007) ameliorates that medical service providers and medical officers want interpreters not only to act as conduits but also as clarifiers and simplifiers of utterances when necessary.An interpreter in the medical consultation is expected to perform more than just the role of changing information from one language to the other verbally but to ensure that each of the parties gets to understand clearly what the other is saying. This requires the interpreter to explain information in simpler ways that can be better understood by each of the interlocutors. In the case of medical interpretation between a doctor speaking English and a patient who speaks only Lubukusu, the

interpreter is expected to simplify the doctor's utterances which contain strong scientific medical terms to a Bukusu patient to understand.

Wadensjö (1998) emphasized the coordinating aspect of interpreters who by virtue of their unique middle position and immediate access to everything available to their ears and eyes in their surrounding, have the hard task of establishing, promoting and controlling connections between primary parties in conversation. This task also includes managing the emotional character of interlocutors' talk by making the cues conveying it more or less accessible to co-participants, with the effect of either encouraging or inhibiting participants' mutual attention.

Translation has been defined by Bell (1991) as the transformation of a text originally in one language into an equivalent text in a different language retaining the content of the message as much as possible as well as the formal and functional features of the original. Translation is therefore the replacement of textual material from one language by equivalent textual material in another language. Translation is an umbrella term covering both translation proper, which is the process of carrying the meaning of a source text to a target language text, and interpretation which is the oral transportation of oral messages from the source language to a target language. Note that in this study we differentiate between the two and refer to transfer of written messages or texts as translation and the transfer of oral messages from utterances as interpretation. Be that as it is, translation is the foundation on which interpretation is built so a number of studies on translation are reviewed in this study even though the study focused on medical interpretation.

Baker (1992) informed this study on matters equivalence to a large extend. Baker suggests that non-equivalence be investigated at five different levels: the word level, above word level, grammatical non-equivalence, textual and pragmatic non-equivalence. This study applied Baker's (1992) categorization of levels of equivalence in the analysis of linguistic constraints in interpreting medical discourse. The concept of equivalence is synonymous with interpretability of texts. Thus, the analysis of English scientific terminologies that have no equivalence in Lubukusu was only possible in the light of the word level of non-equivalence as suggested by Baker.

Baker (1992) acknowledges the importance of individual words during the translation process, she argues that the translator first looks at the words as single units in order to find their equivalent in the TL. The difficultiness of interpreting medical discourse emanates from the technicality of the individual words rather than of stretches of connected discourse (section 4.2) The present study focused on interpretation in a medical setting and unlike Bakers assertion above realized that a single word in an utterance can be assigned multiple meanings and a number of words which form phrases can be assigned a single meaning. This study therefore stretched beyond the word level of analysis of equivalence between Lubukusu and English medical discourse.

Simultaneous Interpretation (SI) of scientific discourse is unique. The peculiarities arise from its oral and immediate nature which does not offer a luxury of time for the interpreter process the information. (Alhiyari, 2014) Owing to the differences between interpretation and translation strategies, this study blends both the word level and above the word level of analysis. Interpretation strategies such as reduction, addition and shifts cannot be fully accounted for at the word level. In addition, a number of

interpretation constraints such as time lag, paralinguistic cues, contextual and cultural constraints could only be sufficiently accounted for above the word level of analysis.

According to Baker (1992), the constraints faced by translators in attaining TL equivalence include: culture specific concepts between two languages, SL concepts not lexicalized in the TL, the TL lacks hyponym, the TL lacks super ordinate, difference in expressive meaning between the SL and the TL concept, SL words that are semantically complex and SL and TL words make distinction in meaning. Baker, (1992) attributes these categories of TL non-equivalence to linguistic differences between the SL and the TL. Although this study focused on interpretation in a medical setting, we were guided by Baker's categorization of constraints in analyzing the interpretation constraints faced by interpreters in medical interpretation. Though not all the categories mentioned here were outlined in the analysis of our data, they permeated through the linguistic, contextual and cultural challenges faced by interpreters in this study.

Wangia (2008) investigated the aspects of mistranslation of the Lulogooli Bible. Wangia, (2008) observes that the translation of the 1951 King James Version of the English Bible into Lulogooli had a lot of lexical flaws. The author notes that although Lulogooli Bible is one of the earliest attempts to translate English into Luhya, the non-native speaker factor on the part of the translators, coupled with lack of a Lulogooli writing system basis must have largely contributed to the lexical inevitable flaws in the translation. She observes that the Lulogooli Bible was a literal translation from English, which failed to appropriately render the SL message to the Lulogooli readers. Wangia's (2008) observation that the translation of the Lulogooli Bible had lexical flaws points at the existence of difficulties of interpreting from English and Luhya group of languages. Given that translators have time to research and consult other

sources of information which the interpreters do not have, a study needed to be conducted to look into the nature of interpretation between English and Luhya languages.

Wangia's (2014) study found out that tense, aspect and case have a great significance in translation of information from English into Bantu languages. The researcher established that tense, case and aspect were not appropriately captured in the Lulogooli Bible translation which resulted in many cases of meaning loss. Wangia's study illustrates how various levels of linguistic analysis are relevant to translation theory and practice. Wangia, (2014) observes that there is meaning loss in translating grammatical categories from English into Lulogooli one of the Luhya languages. Wangia (2008; 2014) studies translation and notes challenges in the translation of the Bible from English to Lulogooli. Given that the challenges of interpretation are greater than those of translation due to the immediacy that distinguishes Simultaneous Interpretation from other forms of translation, there was need for a study to find out whether the differences in grammatical categories of English and Lubukusu could lead to loss of meaning in medical interpretation. Grammatical equivalence refers to the diversity of grammatical categories across languages and the difficulty of finding an equivalent term in the TL due to the variety of grammatical rules across languages. This difficulty of attaining equivalence due to the discrepancies in finding equivalent grammatical materials in the TL is what this study refers to as linguistic constraints in medical interpretation.

Wangia (2014) emphasizes that differences in grammatical structures can significantly change the way the message is transported from the SL to the TL. Due to lack of specific grammatical categories in the TL, the interpreter may be forced to add or delete information in the TL thus leading to the use of certain interpretation strategies

as a remedy to these grammatical constraints. Some of the major categories that often pose problems for translators are number, voice, person, gender, tense and aspect (Wangia, 2008). This study limited itself to studying interpretation constraints and strategies in medical consultations with no in-depth attention given to the grammatical aspects elucidated by the scholar.

Mudogo (2019) studied the relevance and applicability of English-Luhya translations in an informative text. The study established that the translation approaches used by the Mulembe FM newscast were not relevant and applicable to most of the listeners. With regard to relevant translation strategies, Mudogo, (2019) acknowledges that the concept is relative, and that the translator should be guided by the text type and what is functionally appropriate to the TL audience. It is observed in this study that translation from English to Luhya languages is challenging. The study by Mudogo (2019) shows that the translation strategies employed by Mulembe FM newscasters were insufficient and meaning was lost in the process. This study focused on interpretation between English and Lubukusu in a medical setting.

Kariuki (2005) investigated the constraints of translating and interpreting of documents from English into Gikuyu. He noted that, although many Kenyans are bilingual, many others especially the older generation are not and many of the so-called bilinguals have very low proficiency in English and Kiswahili hence the need for translation of information into their indigenous languages. This study was very important as it justified the fact that there is a substantial population of Kenyans who can only express themselves in one local language. It justifies our study which sought to document the nature of communication that goes on between non-native doctors and monolingual Bukusu patients with the mediation of an interpreter. Kariuki (2005) argues that any translation from English or Kiswahili into the indigenous languages

should be appropriately done taking into consideration the needs of the TL audience. This study agrees with the researcher's view that every act of interpretation should take into serious consideration the needs of the audience. The purpose of interpretation in a medical consultation is to help the doctor understand the patient's problem in order to dispense the correct treatment at the same time ensuring that the patient understands the doctor's instruction on their medication as a process that is geared towards their healing. The interpreter therefore has to choose interpretation strategies that will deliver the message intended by each interlocutor faithfully.

Wanjohi (2005) analyzes the translation strategies that Gikuyu FM presenters employ in translating technical terms embodying concepts originally foreign to the Gikuyu culture but without Gikuyu translation equivalence. The researcher concludes that only acceptable strategies can serve as a reliable tool for propagating such vocabulary. Wanjohi's (2005) work is concerned with strategies in Gikuyu radio broadcasts and the fact that Gikuyu radio presenters face many challenges when translating information from English without Gikuyu equivalence. This study focusing on the nature of interpretation in medical consultation, specifically sought to establish the interpretation strategies employed by interpreters. Thus, the foregoing information from Wanjohi (2005) was very vital to this research. The fact that translators encounter constraints that hinder them from translating from English into Gikuyu motivates an enquiry into the nature of constraints encountered by interpreters given that interpreter have very limited time to change the linguistic material from English into Lubukusu in medical consultations. Like Wanjohi, this study set out to establish the interpretation strategies employed by interpreters in medical consultations and establish which ones are acceptable and which ones are inefficient.

2.3 Constraints of Interpreting Medical Terms

Interpretation constraints are the difficulties, challenges and hurdles that interpreters encounter in the process of interpreting (Gumul, 2011). The linguistic and cultural differences between the source language and target language, paralinguistic cues and time lag cause huge problems to interpreters. Any entity that appears to thwart the process of transferring information from one language to another orally is an interpretation constraint. Musyoka (2014) studied problems of interpreting from Kamba to English. The study showed that interpreters were faced with challenges such as overlapping during the performance. These challenges make it very difficult for interpreters to achieve the required level of equivalence in the TL. This study observed a similar challenge during medical interpretation as discussed under the umbrella term 'time lag'

Paralinguistics pose a major challenge in medical interpretation. It is evidently difficult for interpreters to interpret communication materials that are not purely linguistic. It is easier to find a word in the target language to replace one in the source language during interpretation than to find a word to replace non-verbal cues. The term paralinguistic comes from the Greek preposition παρα which means 'alongside' (Schuller, 2010). Paralinguistics therefore refers to any communication cue that is used alongside pure linguistic material. All other means by which humans communicate other than the use of words give rise to what we call paralinguistic cues in this study.

Crystal (1974) excludes visual communication and the like from the subject area and restricts the scope of paralinguistics to vocal factors involved in paralanguage. By vocal factors Crystal, (1974) means all signs produced by the vocal chords through either the mouth or the nasal cavity that are meant to pass messages across. There is a narrow meaning of paralinguistics which excludes verbal factors and a broad meaning

including them. This study subscribes to the latter meaning which defines paralinguistics as the discipline dealing with those phenomena that are modulated onto or embedded into the verbal message, be this in acoustics (vocal, non-verbal phenomena) or in linguistics (connotations of single units or of bunches of units). We therefore use the term to refer to everything that can be found in the speech which cannot be described only in strictly phonetic and/or linguistic terms.

In ordinary communication events, information obtained from speech will often be combined with information obtained from vision, extra-linguistic context, and the like. In medical consultations doctors rely not only on what he hears but also on what he sees and observes from the patient's physical behavior to make a diagnosis. Coughs for example are not linguistic events, but they are somehow embedded in the linguistic message in medical consultations and are vital in making proper diagnosis. The same holds for laughter and filled pauses which display some vital information necessary for diagnosis. These phenomena are embedded in the word chain and are used in diagnosis the same way as words; these reveal the health state and the emotional wellness of the speaker. In addition, high pitch which may be an indication of anxiety and breathy voice indicating extra activity, are other non- verbal cues that are modulated onto the verbal message to enrich medical diagnosis.

According to Schuller et al. (2010) Paralinguistics also deals with everything beyond pure phonology, morphology, syntax and semantics. The term paralinguistics does not only refer to non-verbal cues, it also encompasses the connotative meanings acquired by words for use in given contexts. For instance, the 'normal' word for a being that can be denoted with these classic semantic features [+human, +female, +adult] is 'woman'. The word 'slut' has the same denotation but a very different connotation, indicating a strong negative valence and, at the same time, the social class and the

character of the speaker. This aspect of paralinguistics is revealed among the Bukusu people in the use of words such as ‘man’ which is denoted with the semantic feature [+human, +male, +adult]. This word has a connotative meaning where it carries the same meaning but only and strictly with a positive valence. The word ‘man’ **‘omusecha’** in Lubukusu is only used to name a [+responsible +human, +male, +adult]. This means that an adult male human being who is not responsible is not a ‘man’ ‘**omusecha’** in Lubukusu.

The meaning that words in a language exude both denotative and connotative forms a vital aspect of paralinguistics analysis in language. Bunches of units, for instance the use of many and/or specific adjectives or particles, can indicate personality traits or emotional states. In addition, there are non-linguistic (paralinguistic) functions encoded in speech and in other vocal activities. Speech, acoustic modelling is combined with linguistic modelling whereas written language can only be modelled by linguistic means. The interpreter can encounter challenges of acoustic modeling such as rising final tone which very often denotes a question and loud and high-pitched voice when a person is angry which may not be challenging as such to a translator. This complexity of paralinguistic cues used in communication makes it difficult to interpret them. This is the reason this study set out to find out how an interpreter in a medical consultation interprets these important aspects of communication.

Time lag is another aspect of the communication process that poses real challenges in medical interpretation. Cokely (2014) defines lag time as the time between delivery of the original message and delivery of the interpreted message. Time lag refers to the time taken to transmit information from the source language to the target language. The interpretation phenomenon of time gives researchers of interpretation insight into the temporal characteristics of simultaneity in interpreting, speed of

interpretation and also into cognitive load and cognitive processing involved in the interpretation process.

Cokely (2014) observes that interpreting either simultaneous or consecutive, as a translational activity, has the feature of immediacy. Immediateness, as an integral part of simultaneous interpreting is an element which keeps interpreting activity dynamic. The absence of synchrony and shared knowledge is a cause of cognitive limitation and mental load on the mind of interpreter which leads to interpretation miscues. Perfect verbal involvement and a quality interpreting output, therefore, reveal the presence of a perfect synchrony, standard lag time, appropriate shared knowledge and moderate cognitive load. Cokely (2014) illustrates how the lack of such parameters as shared and encyclopedic knowledge, linguistic and cultural affinities between Source Language (SL) and Target Language (TL) could entail increased amount of mental load and waiting time, and interpreter's errors and miscues and accordingly low-quality interpreting product with semantic inaccuracy. Waiting time, in other words time lag, influences satisfaction in an interpretation event (Ad Pruyn, 1998). When interlocuters have to wait for a long time before receiving the message from the source language they tend to suspect that whatever is finally delivered might be of less equivalence to the actual SL utterance. This fact exerts pressure on the interpreters to deliver the message immediately and may end up leaving out vital information. The balance between appropriate time lag and the accurateness of the message delivered in the target language is a challenge to interpreters in a medical setting.

2.4 Strategies of Interpreting Scientific Terminologies

Challenges are inevitable in the processes of interpreting. The linguistic and cultural differences between the source language and target language pose tremendous constraints in interpretation. When dealing with the linguistic and contextual

constraints, interpreters employ certain mechanisms to achieve sufficient equivalence. Interpretation strategies are the different mechanisms that interpreters use to deal with challenges in interpretation and maximize communication.

According to Baker (2000), translation strategies emerge as soon as the translation cannot be carried out automatically. Moreover, the definition of translation strategies by Krings (1986) as potentially conscious plans which translators consider for solving translation problems Although this study is on interpretation, it agrees with the foregoing studies (Baker, 2000; Krings, 1986) in maintaining that whenever a speaker encounters challenges that make it difficult to effectively pass information across, there will be an effort made to circumvent the challenge and ensure the communication process is successful. Interpreters in medical consultations come across myriads of challenges during interpretation, the linguistic efforts made by interpreters to ensure their audience get the right information are referred to as interpretation strategies.

Mudogo (2019) studies 'The Word Level Strategies used to attain Functional Lukabras Equivalence in the Translation of Mulembe F.M Luhya newscasts. Mudogo's focus on Lukabras equivalence at the word level was influenced by Baker's (1992) acknowledgement of the importance of individual words during the translation process, since the translator first looks at the words as single units in order to find their equivalent in the TL. The assertion above implies that words have meaning but syntactic structures which sentences initiate do not have. This study, however, argues that constructions may have meanings that may override the meaning of individual words as in the case of phrasal verbs.

The phrasal verb ‘look out’ is an example that constructions have meaning beyond just the meaning of single words. ‘Look out’ might not just mean focusing your sight to the outside of something. As a phrasal verb it has meaning which overrides the meaning of each single word which is ‘be careful’ this is why this study broadened the level of analysis beyond the word. Interpretation and particularly Simultaneous Interpretation is characterized with immediacy. The action of carrying meaning from language A to language B happens at the same time as the speakers are uttering the discourses. In view of this special feature that differentiates interpretation from translation, this study borrows from (Baker, 1992; Mudogo, 2019) by combining two levels of analysis of non-equivalence.

Musyoka (2014) studied problems of interpreting from Kamba to English. The study showed that interpreters were faced with challenges such as overlapping during the performance. Thus, interpreters resorted to communication strategies such as filtering, generalization, reduction and shifts. Interpreters’ on-site interpreting performance is shaped by three major factors: the interpreter’s interpreting competence, on-site cognitive conditions and strategies and standards of interpreting (Wang, 2009). Shifts are utilized to help get the information and meanings from the speaker across to the audience in a better way. From this perspective, shifts in interpretation should not be categorized simply as deviation or interpretation error (Barik, 1969). The primary motivation for interpreters to adopt the strategies mentioned above is the pursuit for the optimization of communicative effect that is, they make shifts in order to help the audience understand the speaker clearly and accurately.

According to Gile (1995: 201), "interpreters do not choose their tactics (or strategies) at random, but they seem to follow rules, sometimes consciously, often unconsciously, among them, the rule of 'maximizing the communication impact of the speech' is an important one." All the challenges of interpretation notwithstanding, the interpreters aim at maximizing equivalence, ensuring they deliver the greatest possible Equivalence in the process. The interpreter has to use all the available resources to ensure the target audience gets sufficient meaning out of the translation. The present study may serve as an empirical evidence for this hypothesized rule.

Wang (2012) concluded that the interpreters tend to employ the following general strategies in their interpreting: explicitation in logic relations, specificity of information content, explicitness of utterance meaning, compression of loose structures and redundancy as some general strategies of interpreting utterances. From these general strategies, we can deduce the following sub types of interpretation strategies: Reduction, omission, compression, correction and addition.

In explicitation of logic relations, interpreters add either textual cohesive devices or logic connective expressions to their target texts in interpreting to make the implicit textual or logic relations in the source texts explicit. Mudogo (2019) refers to this strategy as elaboration or explication concurring with As-Safi (2007) who illustrates the strategy with an example from the translation of Shakespeare's '*The Merchant of Venice'* into Arabic. According to As-Safi (2007), the word 'Rialto' in the SL text could only be translated sufficiently into Arabic by explicitation rather than the use of word for word translation.

The second general strategy is specificity in information content. In this strategy, shifts refer to the addition and elaboration of contextual information, situational information, background information and cultural information in the target texts. Explicitness in utterance meaning is the third general strategy. In this strategy, interpreters make explicit in the target text what is intended but implicit in the source text of the speaker (Wang, 2012). The fourth general technique is self-monitoring and correction interpreters employ a parallel structure for a single sense unit in their interpretation, with the second part reiterating the first part or used as a more accurate or a better version of expression in the target language.

Compression of loose structures and redundancy in the source text is the final strategy. Here, interpreters compress loose structures and redundancy in the source text and make them streamlined in the target language expression (Wang, 2012). Reduction is a strategy whereby some SL words are deleted because the interpreter deems them superfluous, unnecessarily repetitive or redundant. Omission as some scholars call it, is the last resort for interpreters when they encounter culturally, ideologically, religious or stylistically unacceptable linguistic material. When linguistic material is devoid of relevance in the context of the target audience it is justification enough for the deletion of such an item.

Widiyanto (2006), notes that this strategy can be used to make the TL audience understand the text more easily and to reduce the lengthy explanation. However, it has been established by Altarabin (2015) that leaving out important information in the TL leads to loss of the SL message. Loss of meaning in medical interpretation can have far reaching effects, in view of this, Altarabin's (2015) recommendation that translators and interpreters should avoid omission of SL words which are purposefully used to convey a certain meaning in a text is applauded. This study focusing on medical

interpretation agrees with Altarabin that reduction or omission as a strategy should be employed with utmost care in medical interpretation.

2.5 Loss and Gain in Interpretation

According to Dizdar (2014), loss is the disappearance of certain features in the target language utterance which are present in the source language speech leading to reduction of equivalence. Interpretation loss refers to incomplete replication of the ST in TT (Dizdar, 2014). When an interpreter fails to render the cultural and linguistic features of the ST in the TT, loss of meaning occurs. Loss can also be related to the failure of the interpreter to convey an element of meaning such as expressiveness. If the interpreter is not competent in the target language, some words and phrases might be deleted and loss of meaning incurred. The other cause of loss is due to the linguistic and extra linguistic differences between the source language and target language. These linguistic differences hold back the interpretation process because each language has its ways of expressing the same concepts in different systems. This concept of meaning loss is echoed by Baker (2000: 244), "It is as impossible to produce a stretch of language in a totally impersonal way as it is to handle an object without leaving one's fingerprints on it". It is almost impossible to reproduce SL information in TL as accurately as is imaginable. The concept of meaning loss is therefore inevitable. Be that true as it is, interpreters are expected to minimize the loss as much as possible and aim at the highest degree of equivalence possible in interpretation.

As-Safi (2006) expounds loss in a binary classification, as *Inevitable* and *Avertable* also observed by (Tiwiyanti & Retnomurti, 2016). Inevitable loss is caused by the divergent linguistic and cultural systems while Avertable loss is attributed to the interpreter's failure to find appropriate lexical and syntactic forms to represent those in the source language speech. In our case, loss incurred due to the linguistic

differences between English and Lubukusu amounts to Inevitable loss while loss that is attributed to the interpreter's inability to find appropriate terminology in the TL to represent those in the SL speech amounts to Avertable loss.

According to Njeru (2015), the loss results from the untranslatability of some elements at linguistic or cultural levels which result in the diminishing of the expressiveness and vividness of the ST. It is difficult to transfer culture specific terminologies into another language, particularly when the words are linked to cultural domains (Nida, 2015). Nida *ibid* uses the words *nasi,* and *beras* which are closely related to Indonesian culture as they are familiar terms that deal with Indonesian staple to explain this assertion. The word 'rice' which is said to be the equivalent shows loss in translation as it refers to both nasi and beras in Indonesian. English speakers only know that the word 'rice' refers to the concept of a small seed of a particular type of grass, cooked, and eaten. According to the Indonesians, there are distinctions in the terms. Such phenomena do not only happen between Indonesian language and English; they are a common occurrence in many other languages which have different cultural backgrounds. This is similar to the Swahili words '*mchele*' uncooked rice and '*wali*' cooked rice, which are both represented by the English word 'rice'. Culture specific terms are words and phrases conditioned by the cultural diversity these may cause loss of meaning if not taken with uttermost care by the interpreter.

Gain is a concept that focuses on the enrichment or clarification of the source language text. Bassnett (2002) defined gain as, "The enrichment or clarification of the source language text in the process of translation." Gain in interpretation refers to the enrichment or clarification of the source language speech to make the target language utterance relevant. Gain is possible due to the dynamism of language (O'Neil, 2006).Gain is possible when new communication acts are made to create a new thing

out of a previously existing one. Relative expressional abilities and creativity enable someone to create something new. Gain in interpretation depends on the relative expressional abilities of the interpreter. Interpreters are always in the situation where they are subjected to the pressure to negotiate the differences in meaning that languages entail.

Orago (2007) explores meaning loss in literal translation in Dholuo oral literature with specific reference to Okumba Miruka's text, *Oral Literature of the Luo*. He observes that culture influences equivalence of meaning from SL to TL. He further notes that ineffective use of translation strategies leads to meaning loss in the process of translating. This study heavily borrowed from Orago's as it focuses on establishing whether the linguistic mismatches between English and Lubukusu lead to loss of meaning in the non-native doctor Bukusu patient interpretation. The study by Orago points at the fact that there is meaning loss in translation a process that accords the translator sufficient time to consult experts and other literature in order to establish the right meaning. This justifies the possibility of errors in Simultaneous Interpretation given that in interpretation there is a real limitation of time as the process of transferring meaning happens at the same time as the dialogue is on-going. However, the present study differs from Orago's since it explores the possible loss of meaning in English-Lubukusu interpretation in medical discourse.

Wambui, (2015) investigating meaning loss in the translated Kimeru proverbs and idiomatic expressions found out that meaning was lost after translation of Kiimenti proverbs and idiomatic expressions into English. The findings of this study are very important to our study as they point at the existence of meaning loss in translating between English and Kenyan native languages. If there are such challenges in translation then what is the situation like in interpreting which is more complex due to

the limitation of time. There was need for a study like this one to investigate interpretation between English and a Kenyan language like Lubukusu and establish whether there is loss or gain of meaning in such interpretation events. The present study differs from Wambui's (2015) study as it investigates interpretation between English and Lubukusu in a medical setting.

2.6 Theoretical Framework

This study was guided by the Pragmatic Model of Simultaneous Interpretation propounded by Setton (1999). Setton (1999; 2012) developed the Pragmatic Model of Simultaneous Interpretation as a model of interpretation. Setton (1999), applied Relevance Theory (RT) to interpretation study and put forward the Pragmatic Model of Simultaneous Interpretation. The Relevance Theory proposed by Sperber & Wilson (1986) is a development of Grice's Relevance Maxim and is regarded as the most important and influential cognitive pragmatic theory in recent years. Although RT is not meant for interpretation, it is powerful in accounting for interpretation, which is a more complex phenomenon than translation proper, and forms the foundation for Setton's Pragmatic Model of Simultaneous Interpretation.

According to Gutt (2000), translation has recently been analyzed in the terms of modern cognitive - pragmatic theory (Relevance Theory) as an inter-lingual interpretive use of language. Gutt's account primarily addresses the principles and processes of text or written translation, where there is displacement in time and place between the original communicator, the translator and the readers. The translator has sufficient time to reconstruct the original informative intention, project the original and target addressees' cognitive environment, and craft a stimulus according to the degree of interpretive resemblance sought (Setton, 1999).

Interpretation, and particularly simultaneous interpreting (SI), is performed in live situations. The interpreter does not have the luxury of time to reconstruct the information. However, the interpreter shares the cognitive environment with the participants and is thus better able to project and control the contexts in which the audience processes the utterances. Since the condition of simultaneity severely constrains the simultaneous interpreter's choice of stimulus, he/she relies heavily on this access to immediate context and her audience's inferential abilities. Text translators need time to project context and choose their stimuli, while in SI, access to live contexts compensates for temporal constraints. It seeks to integrate three variables included in existing SI models -subjective knowledge, online strategies and stylistic preference- into a unifying characterization of SI performance which combines linguistic-processing models with cognitive and pragmatic principles.

2.6.1 Pragmatic Model of Simultaneous Interpretation

The Pragmatic Model of Simultaneous Interpretation is a development from the Mental Models theory (Setton, 1997). In this new model, Setton (1999) argues that the mind of the interpreter does not merely 'receive' concepts, percepts, affects and transmit them as received, rather, it builds up representations which he calls models on the basis of its own individual prism of concepts, percepts and affect before transmission. SI attempts to identify with the Speaker's intentions, attitudes and content through a process of exploiting available evidence. The array of available evidence allows the interpreter to begin building a mental model of each portion of discourse even before its representation is complete in the Speaker's speech ready for transmission to the target audience listener.

A further level of SI analysis is the well-known concept of a "meta-language", an intermediate conceptual language postulated to bridge the gap between the source speech- with its mesh of intentionality, attitudes and propositional content - and the interpreted speech (Setton, 1997). In the model it is formalized as "a kind of language of thought" (LOT). This refers to the language processes that exists in the interpreters mind between the time of hearing the message in the Source Language and speaking the interpreted utterance in the TL. This is what Cokely (2014) refers to as the EVS, the Ear Voice Span.Pragmatic Model of Simultaneous Interpretation is summed up in four principles:

A principle of pragmatic incrementality. In this principle, interpreters can produce speech before the source-language utterance is complete on the basis of a contextualized mental model, or of a logical or propositional form. This principle was used to examine the third objective of the study which was to establish the interpretation strategies used by interpreters when interpreting a non-native doctor Bukusu patient medical consultation. The study set out to establish the effectiveness of the interpretation strategies employed by interpreters and whether they yielded the required level of equivalence or not basing on this principle.

A place holding principle. Following this principal, the interpreter produces approximations for segments which s/he has not fully understood yet. This study established that this principle does not apply in medical interpretation and whenever it was applied it resulted in meaning loss which was the fourth objective of this study

A principle of Efficiency for an SI Mental Model, which represents the input received and the result of its processing as concisely and efficiently as possible. This principle relates to the first and the fourth objectives of the study which were to establish the interpretability of English-Lubukusu medical discourse and to find out whether there

was loss or gain of meaning in the interpretation of non-native doctor - Bukusu patient medical discourse. The principle of efficiency aims at attaining a balance between the input and the output of an interpretation process. When this balance is attained, then gain of meaning is present but when there is no balance between the input and the output of an interpretation event then loss of meaning has occurred.

A principle of pragmatic compensation: the interpreter reconstructs the pragmatic and ostensive dimension of the speech. This fourth principal of PMSI was the most commonly applied in the data that was collected in this study. The second objective of the study was to describe the interpretation constraints encountered by interpreters in a non-native doctor - Bukusu patient consultation and further find out whether these constraints engender loss or gain of meaning. This principle of compensation is the most relevant to medical interpretation as discussed in section 4.6. The aim of interpretation in a medical consultation is to transfer meaning from one party to the other, this is only possible when the interpreter constantly compensates the speaker's utterances. Wherever the interpreter receives input that is not properly constituted he or she reconstructs and puts it in a form that is easily and clearly understood by the other party thus increasing the level of equivalence.

2.7 Chapter Summary

This chapter is an exploration of the relevant literature that forms the backbone for the study. The literature is presented in the subsections enlisted. The first segment reviews literature on the language situation in Kenya, outlining the place and role of mother tongue in the entire formation. A number of studies in Lubukusu are reviewed in the next subsection followed by a sub-section on language and healthcare. Literature on interpretation is presented in the next sub-section which is followed by a sub-section on interpretation in the medical setting. Interpretation strategies, loss and gain in

meaning and the theory that guides this study appear in the last three sub-sections of this chapter in that order.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research methods that guided the study. It outlines important aspects of methodology such as the research design, target population, sampling techniques and sample size, data collection, research instruments, ethical considerations and data analysis.

3.2 Research Design

The study adopted the Analytical research design (Selinger & Shohamy, 1989). The researcher identified language barrier as a problem in medical consultations between non-native doctors and Bukusu patients, chose an appropriate process and used the appropriate process to hypothesize the solution to this problem. The researcher then set out to collect the necessary data by using appropriate measures. The analytical research requires the researcher to look at the results, accept them or reject them and repeat the process until the facts are established. Analytical research is appropriate for testing hypothesis as it helps to identify a claim and find out whether the claim is true or false (Omair, 2015). This study carried out a pilot study prior to the actual research and thereafter the actual research was done. The test, re-test technique is a basic feature of the analytical research design. Thus it was necessary for a pilot study to be carried out as a step in attaining and ascertaining facts about the problem of the study and qualify it to be an analytical study.

3.3 Study Area

Research has shown that the ideal setting for any study is one that is directly related to the researcher's interests (Fasold, 1990). The researcher selected Bungoma County because the study investigated interpretation between Lubukusu and English in a medical setting. Bungoma County was the ideal setting for such a study because in this county it is possible to get non-native doctors interacting with monolingual speakers of Lubukusu. Lubukusu the language spoken in this County is the researcher's mother tongue; this was an added advantage during data collection and analysis. Milroy (1987), noted that the native speaker's intuition is useful when investigating the meaning of a particular language. In this respect, the study benefits from the native speakers intuition. The researcher who is proficient in both English and Lubukusu was able to make vital observations on the process of interpreting between English and Lubukusu thereby minimizing the cost of hiring a language expert during data collection and analysis.

This study targeted Hospitals in Bungoma County. The chances of getting patients who were proficient only in Lubukusu were higher in a County that is mainly occupied by Lubukusu speakers. Situations of non-native doctors encountering patients whose language they do not understand are likely to be experienced in such a setting.

3.4 Target Population

The target population of the study comprised all the 939 non-native doctors in Kenya (Kenya Medical Practitioners and Dentists Board, 2018), all their patients who are not proficient in English and the interpreters who interpreted their consultations. The study also targeted all medical facilities in Bungoma County. Bungoma County has eleven hospitals, two level five hospitals and nine Sub-County (level four) hospitals The study

also targeted a linguistic population which comprised of English medical discourse that have no equivalents in Lubukusu.

3.5 Sampling Techniques and Sample Size

Multistage sampling was used in this study. First, Bungoma referral Hospital and Webuye Hospital, were identified purposively because the non-native doctors targeted by the study were working there. The remaining four hospitals namely: Chwele Sub-County Hospital, Kimilili Sub-County Hospital, Lugulu Mission Hospital and Misikhu Hospital were chosen by snow ball sampling method where the names of the Sub-County hospitals in Bungoma County were written on pieces of papers and put in a container. The researcher picked four of the nine papers and the names of hospitals written on the papers that were picked were included in the research.

The researcher purposively selected twelve non-native doctors who could neither speak nor understand Lubukusu from the selected hospitals in Bungoma County, twelve interpreters and six nurses at the health facilities who acted as the Standardized Patients (SPs) and six real patients. The researcher deliberately identified the 'type' of speakers who fit the specified categories to be studied and thus came up with the sample. The organizers of the inquiry purposively chose the particular sections of the recorded speech that possess the special characteristics targeted by the researcher for analysis (Milroy 1987; Kothari 2005). In a study that sort to establish the interpretation of English-Bukusu medical discourse in a medical context, the researcher purposively selected twelve non-native doctors working in Bungoma County hospitals. These twelve were selected because they were working in Bungoma County where they interacted with patients who speak Lubukusu a language targeted by this study. The researcher also used purposive sampling technique to select six nurses who could

speak Lubukusu and who had interpreted for the non-native doctors and Bukusu patients in a medical consultation for at least one year.

The six nurses enacted the role of Bukusu patients and so they were the Standardized Patients (SPs) in the study. The researcher also picked real patients who were willing to participate in the reseach by use of purposive sampling technique. Each consultation took seven minutes on average giving a total of 168 minutes of speech. The recorded data was transcribed into 24 dialogues. A data extraction guide was used to select the items for analysis. The number of words and phrases extracted from the consultations was 500. Only those words and phrases that exuded the specific characteristics targeted by the research objectives were picked to form the units of analysis (Kothari, 2005). The sections of the data that exemplified the specific interpretation strategies, those that contained the interpretation constraints and the subsequent meaning loss were selected for analysis.Systematic random sampling was then used to reduce the number of words to 150 by picking every third on the list using a sampling interval of 3. This was 30% of the total. This was considered a representative sample threshold by Grinneell (2001) who suggests that a minimum sample representing 30% of the study population is considered sufficient to enhance generelizability to the rest of the population.

3. 6 Data Collection Methods

The researcher adopted both qualitative and quantitative methods of data collection in the study. Two questionnaires were used to collect quantitative data, audio recording and observation were used to collect qualitative data. One questionnaire was designed for the non-native doctors and another for the interpreters. The researcher recorded two consultation sessions of each non-native doctor with a patient or an SP on different appointments. The patients and SPs described their symptoms in Lubukusu and the

interpreters explained the symptoms in English to the non-native doctor. The doctor on the other hand asked questions and explained the diagnosis and treatment in English and the interpreters interpreted the diagnosis and treatment into Lubukusu for the patients. The researcher recorded two consultations per doctor. As she recorded, the researcher observed the process of interpretation between the non-native doctor and the patient. Thereafter, the researcher distributed the questionnaires to the doctors and their interpreters to fill. In these ways, the data for this study was generated following McMillan and Schumacher (2001), who observe that data collection may be done with measurement techniques, extensive interviews and observations, or a collection of documents.

3. 6.1 Audio Recording

The researcher recorded the consultation sessions of the simulated non-native doctor-Bukusu patient consultations and of actual consultations with real patients. The data that is required in any linguistic study is the actual speech produced by the respondents and the only way to obtain sufficient data on speech is through recording (Milroy & Gordon, 2003). Milroy& Gordon, (2003) justify why audio recording of the simulated doctor-patient discussions during the consultations was the main method of data collection. The study focused on analyzing naturally occurring doctor-patient consultation dialogues which was only possible through recording. This was the main qualitative method of data collection and it addressed the main research question which was to what extent are English medical terminologies interpretable into Lubukusu. See extracts of the transcribed audio recorded data in Appendix IX at the back of the thesis.

3. 6.2 Questionnaires

This study administered two sets of questionnaires, one to the non-native doctors in the selected hospitals in Bungoma County and another to the interpreters who interpret from Lubukusu into English for the non-native doctors and from English into Lubukusu for the patients. The doctors' questionnaire consists a set of questions that enabled us get information on the doctor's bio data, area of specialization, working experience and views regarding the importance of interpretation in medical consultations (Appendix IV). The interpreters' questionnaire comprised a set of questions aimed at gaining information on the interpreter's age, level of education, training and experience in medical interpretation, interpretation constraints and interpretation strategies (Appendix III). The data collected by use of the questionnaires cemented what was revealed by the audio-recorded consultations on the four objectives of this study. This quantitative method of data collection was used to supplement the qualitative data collected by audio-recording and observation by seeking affirmation from the doctors and interpreters of what was observed in the data through their responses to the instruments in the questionnaires.

3. 6.3 Observation

Observation is the least obstructive method and the one designed to collect neutral visual data (Kothari, 2005). This qualitative method of data collection was mainly used to obtain data on how interpreters dealt with non-verbal cues of communication and time lag in interpretation. The researcher watched the non-verbal behavior of the doctors and the patients during the consultations and recorded what she observed on the observation checklist in Appendix V. The researcher used a pre-developed observation checklist in the data collection exercise. While the consultation sessions were on going, the researcher looked out and recorded important information on the

checklist as well as made additional field notes on what was observed. Observation as a method of data collection was used to supplement the recorded discourse and it was a very useful tool in yielding data on how the interpreters handled paralinguistic cues during interpretation.

3. 7 Data Collection Procedures

Each non-native doctor with his/her interpreter was observed twice in two consultation sessions with one SP or the real patient. These conversations were recorded as the researcher observed and made notes. Thereafter the non-native doctors and the interpreters were requested to fill in the questionnaires. In this way, the data for the study was constituted.

Data was collected from thirty-six respondents from Hospitals in Bungoma County by recording both simulated medical consultations and real consultations between non-Bukusu doctors and patients who are only proficient in Lubukusu. A doctor, an SP or a patient and an interpreter formed one single consultation. We audio - recorded two consultations for each doctor getting to a total of twenty-four consultations. To ensure the credibility of the enactment in the simulated consultations, the recording was done immediately after an actual consultation in which the researcher was present when the SP (The nurse) was interpreting for real patients. The recording was a repeat of what the researcher had just observed in a real doctor patient mediated by an interpreter. There were real patients who got interested in the research and requested to be recorded in real consultations. These were recorded after signing consent forms and these recordings ensured the credibility of the results.

3.8 Piloting

A pilot study was carried out at Bokoli district hospital prior to embarking on the actual study. Research has shown that smaller populations require larger sampling ratio and that a study on the whole population is always better than a study on a sample (Tiwari, 2016). Basing on this assertion, all the three doctors at Bokoli district hospital were involved in the pilot because the population was small. Smaller population needs the entire population in order to achieve the accuracy required for an analytical research to test hypothesis. Three doctors who are not proficient in Lubukusu, three interpreters, three Standardized Patients and three real patients at Bokoli Sub-county Hospital were purposively selected to participate in the pilot study.

Bokoli Sub-county Hospital was chosen for piloting due to the fact that it has similar characteristics with the hospitals chosen for the actual data collection. This hospital is located in an area that is majorly occupied by speakers of Lubukusu and being a Sub-County hospital, a number of its medical staff are non- Bukusu. There are non-Bukusu doctors attending to patients who are only proficient in Lubukusu with the assistance of interpreters. The validity and reliability of the research instruments and the viability of the study was tested by piloting. Validity is the ability of an instrument to measure what it is supposed to measure. In this study, validity of the research instrument was tested by carrying out a pilot study. The researcher used judgmental sampling technique to select respondents at Bokoli District Hospital for the pilot study. Through the pilot study, the researcher established the validity of the instruments of data collection.

The reliability of the instruments used in this study was established through a test-retest technique in the pilot study. The respondents were recorded twice with an interval of two weeks to establish consistency in the data. The instruments that were not clear were dully updated to meet the requirements. The instruments that yielded consistent results were adapted for data collection during the actual study.

3.9 Data Analysis

The data was analysed and presented using descriptive narrations backed up by instances of inferential statistics. This study adopted a mixed method in data analysis. Qualitative data was analized using content analysis methods. The data that had been collected by audio recording was transcribed and analyzed by giving descriptive narrations of what was observed from both the data and the observation schedules. The data collected by use of the questionnaires was coded and analyzed using the SPSS computer program which transformed the mass of raw data into tables, charts, with frequency distribution and percentages. These formed vital components of making sense of the data and drawing of conclusions.

The data collected by recording was analyzed qualitatively by use of case study and text analysis methods of data analysis. Case study as a method of data analysis was used in this study to meaningfully point out the main tenets of the study observed in the data. Cases were presented in terms of examples which are merely extracts that contain necessary information picked from the entire corpus of ten thousand two hundred and seventy-seven words. In using text analysis, the researcher sliced and diced heaps of unstructured conversations into easy to understand extracts according to the different objectives of the study and gave narrations and explanations of the phenomenon that was observed.

The data was transcribed and sorted according to the research objectives. The researcher sorted the consultations according to the different interpretation strategies employed. The nature of the constraints incurred in the course of interpretation, the loss and gain attained in the interpretation process are presented by descriptive methods. The data captured covered a variety of ailments. Malaria, STIs, diabetes, high blood pressure, physical injuries, COVID-19 and allergy.

3.10 Ethical Considerations

The researcher obtained a letter of authorization for field data collection from relevant authorities to assist the researcher in the data collection process as a guarantee to the respondents that the study was purely for academic purposes. The researcher wrote a letter of introduction to the doctors, the nurses and interpreters elaborating on the purpose of the research in order to assure them of the confidentiality of their responses. During the actual data collection sessions, the researcher explained the process to the respondents and helped them sign the consent forms before the sessions. Before embarking on the research, the first step was to seek permission from the school of Graduate studies; post Graduate committee of Masinde Muliro University of Science and Technology (see Appendix VIII).

A permit to carry out the research was obtained from the National Commission for Science Technology and Innovation (NACOSTI) (see Appendix IX). The researcher secured clearance from the Department of Basic Education, Bungoma County (BC), from the County Director of Health (BC) and the Department of Research BC (see Appendix X), the site where the actual field study was carried out. The researcher sought permission to collect data in each health facility from the medical officers in charge of the different hospitals where the data was collected. The request and permission letters are attached in Appendices XI - XV. The researcher ensured that the

informants sign the informed consent for voluntary participation and explained to the informants how confidentiality and anonymity would be maintained during and after the study. In regard to ethical issues, nurses played the role of Bukusu patients who are not proficient in English.

In the course of collecting data, six patients who were interested in the study offered to be recorded in real consultations. The confidentiality of the consultants was ensured by referring to them using initials such as I for the interpreter, D for the Doctor and SP Standardized Patients in order to guard their identity (Posel & Ross 2015). The consultants signed the consent forms which stated that participation was anonymous and they were free to withdraw from the study anytime. The research used both Standardized Patients (SPs) as part of the ethical considerations for the patients' confidentiality and willing real patients were recorded in consultations. The respondents were asked and guided to sign the informed consent after which they were recorded.

The confidentiality and privacy of the patients in the written dialogues was upheld by using pseudo names for both the patients and names of places. A good rapport was established throughout the research process and the respondents were asked to respond to the interview at their own discretion and willingness. Above all, confidentiality of the research data was upheld in the entire research process so that the respondents' privacy is not infringed. According to Greertz (1968) fieldwork is a social act which carries with it moral responsibility. After collecting the data, the researcher expressed gratitude to the respondents for being helpful and co-operative both verbally and by giving them cash for lunch since the data was collected over lunch break. The researcher will share copies of the published study as feedback to the community.

3.11 Chapter Summary

In this chapter, aspects of methodology that guided the research have been outlined. These are the research design, the study area, the target population, the sampling techniques and the sample size, the methods and procedures of data collection, the pilot study, data analysis and ethical considerations. The next chapter comprises: data presentation, analysis, interpretation and discussion of the results.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

In this chapter, the data is analyzed, presented, interpreted and discussed in line with the objectives in section 1.3. The interpretability of English medical terms into Lubukusu is discussed at the beginning of the chapter followed by a description of the nature of interpretation constraints encountered by interpreters and the interpretation strategies used by interpreters in medical consultations. A section on Loss and gain of meaning in interpretation is followed by a section on solutions to the constraints. The final segment in this chapter discusses the applicability of the PMSI to this study and how the present study dilates this theory and adds to the existing knowledge on Simultaneous Interpretation. The principles of the Pragmatic Model of Simultaneous Interpretation: incrementality, place holding, efficiency and compensation guided the interpretation of the data. The following are the results of this research presented according to the objectives of the study. It is important to note that instances where proper nouns are used in the data, they are imaginary and do not refer by any means to any real people or real places

4.2 Interpretability of English Medical Terms into Lubukusu

The first objective of this study was to establish the interpretability of English medical terminologies into Lubukusu. The following extracts from the recorded real and simulated dialogues between non-native doctors and Monolingual Bukusu patients (Appendix XVI) address the issue of the interpretability of English medical terminologies into Lubukusu. The letters placed before the dialogues stand for the following: D is for the words spoken by the non-native doctors, I is for the interpreted utterance and SP is for the patients' and Standardized Patients' utterances.

The phonetic representations of the utterances made in Lubukusu have been put inside slashes. The phonemes are adapted from the IPA chart sourced from Web Britanica (2020) attached at the back of this document as Appendix XIX.

In the phonetic transcriptions, Lubukusu vowels are represented as [a e i o and u]. The long vowels are marked as a sequence of two vowels, [aa], [ee] [ii] [oo] [uu]. The unique consonant sounds are presented as follows: [b] represents 'b' after a nasal and [β] elsewhere, [tʃ] represents 'ch', [ʃ] represents 'sh', [x] represents 'kh', 'ng' (without apostrophe) is represented as [ŋg] and as [ŋ] (when it has the apostrophe) and [ɲ] represents the palatal nasal 'ny'. The consonant sounds of Lubukusu as summarized on table 4.1 below.

Table 4.1 The Consonant Sounds of Lubukusu

	Bilabial	Labio-dental	Dental	Alveolar	Post-Alviolar	Palatial	velar
Plosives	P b			t d			k
Nasals	m		dʒ	n		ɲ	ŋ
Trill				r			
Fricatives	β	f		s	ʃ	tʃ	x
Approximant						j	w
Literal approximant				l			

In this data that addresses the interpretability of English-Lubukusu medical discourse, English is the source Language and Lubukusu the Target Language. The backtranslation of all the utterances in lubukusu is given in brackets

1

D: I will give you some antibiotics.

I: Khakhua chiandipayotic **(**He is giving you antibiotics)

/xaxua tʃiandipajotik/

SP: Andipayotic nisio sina? (What is antibiotic)

/andipajotik nisio sina/

I: Khokhukhua kamalesi fulani kakhuyete oone, kamalesi kakera birusi mumubili. Bali khobakhua kamalesi fulani kachakhwira birusi fulani mumubili.

(We are giving you a certain to help you get well, medicine that kills viruses in the body. That he is giving you a certain medicine that is going to kill certain viruses in the body)

/xoxuxua kamalesi fulani kaxujete oone kamalesi kakera βirusi mumuβili/

In extract one above the non-native doctor uses the word antibiotics which does not have an equivalent form in Lubukusu. The interpreter retains the word antibiotics in the TL utterance and loss of meaning occurs. To prove that this is a new phenomenon to the monolingual Bukusu patient, the patient asks, **'**andipajotik nisio sina*?*' (What is an antibiotic?). The interpreter answers her, "Some kind of medicine that kills bacteria in your body" then she adds that it's a kind of medicine that kills some kind of viruses in the body. The term 'antibiotic' is one example of medical terms that have no equivalents in Lubukusu and might not be sufficiently interpreted by an explanation.

The interpreter who is in essence a linguistic mediator between two people with no common code of communication, misses out in this particular mediation event as she interprets bacteria as **'**βirusi' which means viruses. It is common knowledge in medical jargon that a virus and bacteria are two very different organisms causing different ailments in humans. The interpretation here fails the Vinlay and Darnebelt (1995) test of equivalency. They (Ibid) view equivalency as a product of interpretation in which the same situation is replicated in the target language but with different wording. The medical terms: antibiotic and bacteria are uninterpretable into Lubukusu. The same phenomenon is experienced in the following extract.

2

D: He is having metemesis?

I: Explain

D: Does he have metemesis? Is the cough, does it have any blood stains?

I: Nakholola kamakhaso ako kabechanga khomo nende kamafuki**?** **(**when you cough, does the cough have blood stains)

/noxolola kamaxaso ako kaβetʃaŋgaxomo nende kamafuki/

In this second example, the doctor uses the word metemesis to inquire about the type of cough that the patient is having. Shariati and Shariati (2014) note that a successful translation or interpretation for that matter, is one that conveys the explicit and implicit meaning of the source language as fully and accurately as possible. Notice that the interpretation in this example is successful. The interpreter did not know the meaning of the word so he asks for an explanation from the doctor but even after getting the meaning of the word, the interpreter does not find any equivalent one to one terminology in Lubukusu. He attempts to interpret by giving an explanation in Lubukusu. Eventually the medical term metemesis is interpreted by elaboration which suffices as no meaning was lost. The case above agrees with Jacobson (1959) that differences between languages should not necessarily thwart the process of interpretation.

3

D: She may be developing stomach ulcers. I will send her to do an ultra-sound then we can proceed from there.

I: Bali ofwana olinende bidonda bywe munda, taktare alikho akhuruma khukhupa epicha ye munda nie abone nga naendelea. (That you seem to be having wounds in your stomach, the doctor is sending you to take a picture of the stomach then he will see how to continue)

/βali ofuana olinende βidonda βje munda, takitare alixo axuruma xuxupa epitʃa je munda/

In example 3, two words used by the non-native doctor lack equivalents in Lubukusu. The patient in the dialogue complains of stomachache and the doctor suspects that the patient might be having ulcers. The doctor plans to send the patient for an ultra sound. The interpreter had the task of carrying this message across to the patient from English to Lubukusu. The two words 'ulcers and ultra-sound were a challenge to the interpreter as she found no equivalents in Lubukusu. She therefore interpreted them by an explanation as, "bitonda bywe munda" (stomach wounds) and "epicha ye munda" (the picture of the stomach). Despite these phrases not being the one to one equivalents for the two words, they sufficiently delivered the message intended for the patient.

4

D: It only protects against the virus and boasts your immunity.

I: Bali tawe ekhulinda busa khukhwamanana nende covid lundi ekhuwa immunity. (That it only protects you from COVID and gives you immunity)

/βali tawe exulinda xuxwamanana nende kɵvid lundi exuwa imjuniti /

SP: Naba immunity nisio sina? (And now what is immunity?)

/naβa imjuniti nisiɵ sina/

I: She is asking what is immunity?

D: Immunity is the ability of your body to withstand a particular disease or situation.

I: Bali immunity eli ehali ye khuuba nende bunyali bwe khupana nende bulwale bubwicha. (That it is the situation of having the ability to fifght the diseases that come.)

/βali imjuniti eli ehali je xuβa nende βuɲali βwe xupana nende βulwale βuβwitʃa/

The term immunity as used by the doctor in this excerpt poses a challenge to the interpreter. The interpreter seemed not to know any word in Lubukusu that means exactly the same as immunity. In her interpretation she decides to use the same word from the SL into the TL utterance, in the process the message is lost and the patient asks what the interpreter meant. The interpreter faithfully passes the question across

to the doctor. After the doctor's explanation of what immunity is, still the interpreter could not find an equivalent term that means the same in Lubukusu. She therefore opts to do interpretation by explicitation.

5

D: Has she tested COVID?

I: Mala waipimakho koviti? (And have you tested COVID?)

/mala wapimilexɵ kɵvit/

The data in this study was collected partly in the year 2020 and early 2021 a period of time when COVID -19 was at the peak. Finding patients with COVID-19 was therefore inevitable. Furthermore COVID -19 was a novel disease so people had no time to find appropriate terms in their various languages to name the disease or the symptoms that characterized it. In Lubukusu as can be seen in the example above, the same word from the SL was used in Lubukusu with adaptation to the phonology of Lubukusu

6

D: I think that is an allergy, any history of allergy in the family?

I: Takitari alikho aloma ali oli nende allergy ye mbeo. (The doctor is saying that you have allergy for cold)

/ takitari alixo aloma ali oli nende alatʃi je mbeo/

SP: Alachi nisio si? (What is allergy?)

/alatʃi nisio sina/

I: What is allergy?

D: Allergy is when somebody reacts to something in the environment like cold, dust or food, when exposed to that environmemt the body developes some changes.

I: Bali kumubili kwoo kwaria embeo, sekwenya embeo eyeyo ta, noluli lufumbi nende embeo eyeyo nono yekasia kamolu ili okhilwa khuela okhwokhwo.

(That your body fears cold, it does not want that cold, if it is dust and that cold now it blocks the nose so then you are unable to breath.)

/βali kumuβili kwoo kwaria embeo, sekweŋa embeo ejejo ta, noluli lufumbi nende embeo ejejo nono jekasia kamolu ili oxilwa xuela oxwoxwo/

In example 6 above the doctor uses the word allergy to describe the patient's condition. The interpreter uses the same word in her interpretation which causes the patient to ask, "alachi nisio sina?" (What is allergy?) The interpreter still fails to find a word in Lubukusu that means the same as allergy and therefore interprets it by the same explanation given by the doctor. The explanation in this case does not sufficiently carry the intended meaning from SLto TL.

7

D: I think she has rhinitis I will give her antihistamines to decongest the nostrils.

I: Bali alakhuwa antihistamaini yikule kamolu.

(That he will give you antihistamain to open the nose.)

/ βali alaxuwa antihistamaini jikule kamolu/.

The English medical terms in this extract are rhinitis, antihistamine and decongest. The interpreter does not interpret the word rhinitis due to lack of an equivalent in Lubukusu or perhaps the failure to know the meaning of the word. The word antihistamine is used the way it is in the TL, and decongest is rendered as 'yikule' (to open). Of the three words, only the word decongest is interpreted the rest are left uninterpreted. There exists semantically complex items in some languages that do not have equivalents in other languages. Moore (2005) established that some Arabic words do not have equivalents in English. This study established the same phenomenon. There are English medical terms that do not have equivalents in Lubukusu and these pose a real challenge to medical interpreters.

8

D: He has been using phenobapital to relieve the headache, does he convulse

I: Phenobapital, okelangao nokhola oli chinganakani chitiba namwe?

(Phenobapital, are there times when your thoughts get lost?)

/fenobapitol okelangao noxola oli tʃinganakani tʃitiβa namwe/

The patient in the consultation from which the extract above was taken was suffering from epilepsy and so he had been using phenobapital to prolong the intervals between the convulsions and make him function better. The word phenobapital which is the name for the drug used by epileptic patients does not have an equivalent form in Lubukusu and so it was retained in the TL utterance. English and Lubukusu belong to different cultures, origins and world views, these differences provide good grounds and evidence for the possibility of what (Gazhala, 2004) referred to as "unstranslatable". The same case is observed in the following three examples: 9, 10 and 11.

9

D: On top of it we shall give her paracetamol

I: Nono lundi okhocha khumila kamalesi ka pungusia choto bali paracetamol.

(Now you are going to swallow medicine that reduces hotness called paracetamol.)

/nono lundi oxotʃaxumila kamalesi ka pungusia tʃoto βali paracetamol/

10

D: It actually shows you have malaria but no typhoid

I: kokesia kali olinende malaria yong'ene tyhoid selimo ta

(It shows you have only malaria, typhoid is not there.)

/kokesia kali olinende malaria joŋ'ene taifoti selimo ta/

11

D: So we are going to test malaria for malarial parasites and also since it has the same presentation like someone who has typhoid, so we are going to do the widal test also.

I: Balikho bacha khupima malaria lundi bapimekho birusi bia malaria mala lundi bapimekho taifot sikila bwosi bwicha nende chisaini chindala chifwanana. (That they are going to test malaria and test the visuses that cause malaria and then test typhoid because they both come with similar signs.)

/βalixo βatʃa xupima malaria lundi βapimexo βirusi βia malaria mala lundi βapimekho taifot sikila βwosi βwitʃa nende tʃisaini tʃindala tʃifwanana/

The terms paracetamol and typhoid were retained in the interpretation of the excerpts presented above. While the word widal was not interpreted at all. Paracetamol is the name of a very common painkiller while typhoid is a form of infection in human beings that causes severe fever and joint pains also common among this population. These two terms are common among the larger population of Kenyans who have now adapted them to their native languages and are frequently used as loan words. The use of paracetamol and typhoid in Lubukusu therefore does not inhibit communication. Jacobson (1959; in Venuti eds. 2000:114) opines that differences between languages do not necessarily prevent inter- lingual translation. The interpreter uses loan words to maneuver the challenge of equivalence successfully. The word widal is not common among the ordinary people that is why the interpreter leaves it out in his interpretation and that information is lost because it is an example of the uninterpretable medical terms. Three words in the next two examples have no equivalents in Lubukusu.

12

D: and after we requested for the lab test, and actually the urine shows there was infection.

I: mala bachile bamupima mulapu mala bali kamenyi kabelekho nende eshida, eshida yabelekhomo kidoko/ (And they tested him in the lab and his urine had some problem, some small problem.)

/mala βatʃile βamupima mulapu mala βali kameɲi kaβelexo nende eʃida, eʃida jaβelexomo kidoko/

13

D: Now your results are out. There are some bacteria and viruses in your body.
I: Bali kamachibu karurile, kokesia kali kumubili kwoo kulimo nende bibindu bibi bikhenyekhana tawe. (That your lab results have come out, they show that your body has some bad things that are not needed.)

/βali kamatʃiβu karurile, kokesia kali kumuβili kwoo kulimo nende βiβindu βiβi βixeɲexana tawe/

In example twelve and thirteen, the words infection, bacteria and viruses are examples of words that could not be interpreted into Lubukusu. The interpreter in this consultation seems not to have known any word in Lubukusu that means the same as these words. The interpreter interprets the word infection as '*eshida yabelekhomo'* (there is a problem in your urine) the interpreter calls an infection a 'problem' in his interpretation. The words bacteria and virus are simply interpreted as 'bibindu bibi' (bad things). As can be observed from the foregoing examples, there are English medical terms that are uninterpretable into Lubukusu due to lack of equivalents and in most cases, they are inexplainable as the explanations that are given as attempts to pass the meaning to Bukusu patients are insufficient.

14

D: from what you are saying you have anosmia?

I: Elaborate on that.

D: O yeah you said he has lost the sense of smell?

I: watibisie bunyali bwe khuunyila? (Have you lost the ability smell?) /watiβisie βuŋali βwe xuuŋila/

The word anosmia in example 14 was also challenging to the interpreter. When the doctor asks the patient if he has anosmia, the interpreter asks the doctor to elaborate on it because he has not understood its meaning. The doctor elaborates on the word and eventually the interpreter interprets it as 'bunyali bwe khuunyila' (the ability to smell) which suffices even though the interpreter evades the word 'sense' as it is another new concept that is inexpressible in Lubukusu.

15

D: Could you also be having anorexia?

I: Elaborate on that.

D: Have you lost the desire to eat?

I: Watibisie ehamu ye khulia? Ye khulia siakhulia? (Have you lost the desire to eat, to eat food?)

/watiβisie ehamu je xulia? je xulia siaxulia/

In 15 above the word anorexia is used in the doctor's English utterance. The interpreter who was not a medic could not make out the meaning of the word and requested for elaboration from the doctor. Notice that instead of the doctor using the word appetite he says, 'the desire to eat' the doctor being limited in his proficiency in English seemed to have learned only the medical term for loss of appetite and lacked the common word 'appetite' this could be the reason why the medical term anorexia may have been used instead of loss of appetite. After the elaboration by the doctor the interpreter interprets the word correctly as '*watibisie ehamu ye khulia'* (have you lost your appetite).

16

D: What about mmmm are you having ageusia?
I: eee elaborate on that.
D: Have you lost taste?
I: Olikho nende echamu? (Do you have taste?)
/olixo nende etʃamu/

The doctor here uses the word ageusia to mean loss of taste. The interpreter asks the doctor to elaborate on the term since he does not seem to know the meaning of the word. It was only after the doctor's explanation of the word that the interpreter interpreted it as "Olikho nende echamu" (do you have taste) which does not bring out the exact meaning of the word which is 'have you lost the sense of taste'. It is a common believe by people who learn a foreign language for use only for a particular period of time on a short time mission that those who use the language frequently are well versed in the unique terminologies used in such a language. In most cases such language users are never aware of the unique characteristics of the different languages and the uniqueness of language as used in different spheres of life.

A doctor from a country that does not use a particular language such as English may assume that all speakers of such a language know the meaning of all scientific terminologies in the language yet this is never the case. Similarly, a non-native doctor who comes to a country to work may struggle to learn terminologies that are associated with their area of specialization with the expectation that these will help them to function in their day to day duties. Such doctors tend to use English medical terms even with ordinary people expecting them to understand because they know the language. This assumption could be the reason why these non-native doctors used many technical medical terms in their consultations with Bukusu patients who are not proficient in English. Consider example 17 below;

17

D: Are you aphonic?

I: (silence)

D: Can he talk maybe he has lost the ability to phone or to sound or to articulate sounds, to voice well.

The word aphonic in this example extracted from a medical consultation that involved a patient who had lost the ability to articulate words well was not interpreted. The interpreter in this case remained silent until the doctor repeated the question by explaining the meaning of the word.

18

D: I can see he is touching the neck here; does he have that pharyngeal irritation?

I: Olaumianga sina ekokopilo? (What are you suffering from at the throat?)

/olaumianga sina ekokopilo/

D: I will give you acetamicine to ease the irritation.

I: Alakhuwelesia acetamicine eosie emumilo. (He is giving you acetamicine to cool the throat.)

/alaxuwelesia asetamaisin eosie emumilo/

> D: Ok think from my assessment, you have all the cardinal sighns of covid 19 so it will be important for us to take a sample for testing covid 19. Meanwhile I will give you naproxen to clear the pharyngitis and diethylpropion for anorexia as we chart the next step in his treatment.
>
> I: Bali taktari alikho akhuwa kamalesi bali naproxen nende, nende… kalakhuyeta khukokopilo nende khukobosia khukhwenya khulia. (The doctor is giving you medicine called naproxen and…and…it will help you with the throat and return the desire to eat.)
>
> /βali taktari alixo axuwa kamalesi βali naproksen nende… nende kalaxujeta xukokopilo nende xukoβosia xuxweŋa xulia/

This last example dilates the concept of the "uninterpretables" opined by (Moore, 2005 & Gazhala, 2004). The doctor had encountered a patient with the cardinal symptoms of COVID-19. At this time COVID-19 had just struck and people had had no time to familiarize with the terminologies used around COVID-19. The doctor therefore uses the raw terms to describe the symptoms of COVID-19. The words pharyngitis, covid, naproxen diethylpropion and anorexia are used in the doctor's SL utterance. The interpreter interprets some of the words using simple explanations and leaves others uninterpreted. The words pharyngitis, naproxen and diethylpropion are not interpreted while anorexia is interpreted as 'khukhwenya khulia' (to want to eat) which means the exact opposite.

The data in this study reveals that most English medical terms that were recorded in this data did not have equivalents in Lubukusu and therefore were either interpreted by elaborate explanations or were not interpreted at all and were regarded as non-interpretable. Interpreting English medical terminologies into Lubukusu is an uphill task as noted in the data above. English is a language with very different linguistic characteristics from those of Lubukusu. English has been utilized in majority of language settings including science, a field that it has dominated for years. Lubukusu on the other hand is an indigenous Kenyan language that has limited utilization in science and medicine. The fact that Lubukusu has not been used frequently enough in

science and conventional medicine limits its vocabulary in such fields. These truths make it very difficult for interpreters in medical consultations to achieve the required level of equivalency and most English medical terms are not interpretable into Lubukusu.

Shariati and Shariati (2014) concluded that translating into one's own language is easier than the reverse. The data in this study establishes a deviation from this assertion. Shariati's claim does not apply to medical interpretation between English and Lubukusu. This study notes that it was more challenging for the interpreter to render the doctor's English utterances into Lubukusu for the patient than to interpret the patient's words from Lubukusu into English for the doctor. If Shariati's assertion applied to an English Lubukusu medical interpretation then the issue of uninterpretability of English medical terms will not arise. It is evident from the extracts above that the interpreters found it harder to interpret from English into Lubukusu even though Lubukusu was their first language. House (1997:24) argues that ' a translation text is doubly bound to the source text and to the recipient communicative conditions." Even with the understanding that transferring written meaning is slightly different from the carrying of meaning orally from one language to the other, owing to what is observed in these data, we conclude that the ease of interpretation into a language depends more on the nature of the language into which one interprets, how much the vocabulary in the language has been stretched by utilization in a wide range of fields and not necessarily on the basis of being the interpreter's first language. Table 4.2 below presents a summary of the scientific terminologies encountered in the example enlisted in this section and how the interpreter conveyed or failed to convey the intended meaning.

Table 4.2 Interpretability of English Medical Terms into Lubukusu

No equivalents Non-interpretable	Interpreters effort	**No-equivalents Interpretable by explication**	Interpreted Meaning
Acetamicine	Retained	**Ageusia**	-
Allergy	*Buri* (fear of)	**Anorexia**	-
Antibiotics	Antipayotics	**Anosmia**	-
Antihystamines	Retained	**Bacteria**	Bad things
Covid	Kofit	**Epistaxis**	nose bleeding
Diethylpropion	Retained	**Immunity**	-
Dysuria	Not interpreted	**Ulcers**	Stomach wounds
Epihora	Not interpreted	**Ultra-Sound**	A picture of the stomach
Naproxen	Not interpreted	**Urticaria**	itchiness due to allergy to cold
Paracetamol	Not interpreted	**Metemesis**	With blood stains
Pharyngitis	Retained	**Viruses**	Bad things
Phenobapital	Retained	**Rhinitis**	blockage of the nostrils
Typhoid	Retained	**Widal**	Not interpreted

The table above shows the meaning that the interpreter transmitted from the SL (English) to the TL (Lubukusu). The dashes on the table represent words that were not interpreted. Sometimes the interpreter simply remained silent when a scientific term was used whose meaning he/she did not know. Such are the cases represented by the dashes.

The interpretability or non-interpretability of English medical terminologies into Lubukusu is indeed a matter of equivalence or non-equivalence. According to Catford (1965) equivalence occurs when the SL and TL texts or items are related to the same relevant features of situation and substance. Equivalence in interpretation therefore means that the SL utterance and the TL utterance share some kind of 'sameness'. In this regard when the non-native doctor speaks to a monolingual Bukusu patient in English and the interpreter renders the doctor's utterance into Lubukusu in such a way that the monolingual Bukusu patient gets the exact meaning

intended by the doctor, then equivalence will have been achieved. Interpretability therefore means that the English medical terminologies recorded in the study had equivalent forms in Lubukusu. Non-interpretability would refer to a situation where the English medical terminologies used by the doctor have no equivalent word or term in Lubukusu that can render a one to one interpretation.

This section does not only examine the interpretability of English medical terms into Lubukusu but it also stretches out to establish whether some of the assertions made by earlier researchers still hold water in medical interpretation. For instance, Shariati and Shariati (2014) concluded that translating into one's own language is easier than the reverse. As we examine the data recorded here, we conclude that this claim does not apply to interpretation and medical interpretation in particular. This study observes that in a medical consultation between a non-native doctor and a monolingual Bukusu patient, it was easier for the interpreter to render the the patient's Lubukusu utterance into English for the doctor than to interpret the doctor's English utterance intoLubukusu for the patient. It is on this basis that we conclude that most English medical terms are not interpretable into Lubukusu.

Nida (1964:126) believes that the main aim of equivalent effect is to achieve "the closest natural equivalent to the source language". Equivalence in interpretation should be the goal of every interpreter. For a word to be said to be interpretable it should be a word that either has an equivalent form in the target language or is interpretable by elaborate explanation in the TL. But if a word does not have an equivalent form in the TL and any interpretation by an explanation distorts the meaning of the word then it is said to be non-interpretable. In the data presented above, many medical terminologies recorded were not interpretable into Lubukusu. All English terminologies that name different types of medication were non-

interpretable into Lubukusu. These do not have equivalent forms in Lubukusu and any explanation concerning their meaning can only be given by experts in pharmaceutical medicine yet interpreters do not have this kind of expertise.

Therefore, there is a substantial amount of scientific jargon that is not interpretable from English into Lubukusu. Scientific jargon was noted to be the biggest linguistic challenge to interpreters in this study. Interpreters encountered challenges when they met scientific words that lacked equivalents in the TL. Some scientific terms of English describe minute thoughts, sensations and ideas that are extremely difficult to interpret into Lubukusu. These terms are susceptical to misinterpretation which may empede smooth communication between the health care givers and the patients. The miscommunication may lead to faulty diagnosis that may consequently lead to wrong treatment that may endanger the patients' life. This vital revelation based on the first objective of this study leads as to the second objective which was to describe the difficulties encountered in medical interpretation.

4.3 Constraints of Interpreting Medical Discourse

The second objective of this study was to examine the constraints encountered by interpreters when interpreting medical consultations between non-native doctors and Bukusu Patients. Interpretation constraints are the challenges that interpreters encounter in the process of rendering an oral text from one language to another. As observed in section 4.3 above, a number of English medical terminologies were not interpretable into Lubukusu. Anything that made it difficulty for the interpreters to successfully pass the doctor's message in English to the patient in Lubukusu, is an interpretation constraint. The linguistic and cultural differences between the source language and target language pose tremendous constraints in interpretation. Musyoka (2014) studied problems of interpreting from Kamba to English. The study showed

that interpreters were faced with challenges such as overlapping during the performance. In a medical setting the challenges of interpretation are many. These range from the patient's inability to explain their situation due to the pain of the ailment, the unique nature of scientific terminology, the cultural dictates about the use of certain terms, the limitations of time, literacy level among others. These constraints were grouped into four main categories as follows: linguistic constraints, time lag, paralinguistic and contextual constraints.

4.3.1 Linguistic Constraints

Linguistic constraints encompass the lexical, semantic and syntactic aspects of a language that make it difficult for the interpreter to express its meaning in another language. The differences between Lubukusu and English noted at these different levels of linguistic analysis pose challenges to interpreters in medical consultations and constitute the linguistic constraints. In order to deal sufficiently with the linguistic constraints observed, we applied Baker's (1992) categories of TL non-equivalence. Baker (1992) noted that the difficulty and the problem in translating from one language into another is posed by the concept of non-equivalence. Baker (1992) identified various categories of target language non-equivalence attributed to linguistic differences between the SL and the TL in what is known as Baker's taxonomy of non-equivalence. The taxonomy comprises the following categories of non-equivalence: the target language lacks a hyponym; the source language is semantically complex and culture specific concepts. Although Baker (1992) studied translation, the taxonomy is vital to this study on medical interpretation at this juncture as it enables the researcher to concisely account for the linguistic and cultural constraints encountered by interpreters in English- Lubukusu medical discourse.

4.3.1.1 The Target Language Lacks a Hyponym

Baker (1992) raises the need to group vocabulary in a language into some conceptual fields. She states that semantic fields are the division "imposed by a given linguistic community on the continuum of experiences" (Baker, 1992:18). On this basis, words can be classified in the hierarchy of semantic fields, from the more general, the super ordinate, to the more specific, the hyponym. In this regard, the word stationary is a super ordinate while the words: books, pens, papers, and pencil will be hyponyms. Pham (2010) established that the lack of super ordinate and hyponyms in Vietnamese for the English concepts were a challenge to English – Vietnamese translators since there were a great number of Vietnamese words that were thought to be equivalents but each of them posessed a slightly different connotation. In this view, if general and specific terms in the SL do not equally match the TL terms, they become a hinderence on the interpretation process.

Back pain or backache is just backache in Lubukusu but in English, back pain can be categorized as follows: coccydynia or tail bone back pain (lumbago), back pain near the neck (cervical) and middle back as thoracic. Lubukusu which lacks equivalents for the hyponyms: lumbago, thoracic and cervical will only refer to this as kumukongo kuchuna, /kumukongo kutʃuna/ (back pains). A similar situation was observed in the example 36 section 4.3.3 The Bukusu word 'enda'/enda/ translates into English as "stomach'in Lubukusu therefore when one is suffering from pain in whichever part of the abdomen they will say "enda echuna' /enda etʃuna/ meaning the stomach is paining. But in English the words abdominal pain and stomachache are used depending on the part of the admomen that is paining. The hyponyms: cramps, stomachache and abdominal pain do not exist in Lubukusu and these cause interpretation constraints to the interpreters in medical interpretation. Similarly in

example 19 below, the Lubukusu words in bold lack hyponyms and that makes it difficult for the interpreter to pass the intended meaning.

19

D: She complained about headache where in particular?
I: Kumurwe kuchunila wae? (Which part of the head is aching?)

/kumurwe kutʃuna wae/

SP: Taktare kumurwe kumurwe kurema busa kwosi raundi busa nende mbulila lulumbuchu.

I: She is saying that the whole head is painful and she feels dizziness.

The words in bold type: kurema and lulumuchu lack hyponymns in Lubukusu like the words bacteria and viruses in example 13 above. These were interpreted by use of general terms because Lubukusu lacks equivalent hyponyms to mean exactly same as bactaria and viruses/ the interpreter therefore rendered these words as ‘bibindu bibi’ (bad things). There are so many bad things that may cause discorfort in the body of a human being, so to say there are ‘bad things’ in some one’s body that are causing sickness will be to use a super-ordinate expression that does not capture the exact meaning of the word.

In example 12 in this section as well, there is the use of a super-ordinate expression in the interpretation of the term ‘infection’ The patient in this extract had had a urinalysis which revealed that his urine had UTI. The interpreter finds no word in Lubukusu to mean infection and renders the word as “eshida elimo” there is a problem. There are so many problems found in urine that may cause health problems to a human being and so to say ‘there is a problem’ does not suffice

4.3.1.2 The Source Language Concepts Not Lexicalized in the Target Language

English is an indo-european language that has been utilized in all scientific fields over long periods of time. Lubukusu on the other hand is a Bantu language to which science is a foreign entity. These differences between the two languages engender a great deal of constraints in interpreting scientific discourse. Because Lubukusu has not been adequately utilized in the field of science, most English scientific concepts are not lexicalized in Lubukusu thus posing difficulties in medical interpretation. According to Baker (2000), translators first look at the word meanings as single units before carrying out a translation. Vocabulary was noted to be the linguistic component that posed most challenges to interpreters. The nature of scientific jargon makes it very difficult to interpret from English into Lubukusu because of lack of equivalent lexical items. Science is a foreign entity to most African languages. Scientific terminologies were coined in environments which are foreign to most African languages. It is very challenging if not impossible to find equivalent terminologies in Lubukusu that can replace most scientific terminologies recorded in our data. In dialogue 20 to 24 a number of scientific terms are used by the doctor but these are not lexicalized in Lubukusu thus making it difficult to interpret.

Example 20

D: So, you are saying that you are anosemic?

I: Elaborate on that.

D: O yeah you said he has lost the sense of smell?

I: Watibisie bunyali bwe khuunyila? (Have you lost the ability to smell?)

/watiβisie βuɲali βwe xuuɲila/

The term anosmic, which means loss of the sense of smell, does not have an equivalent word in Lubukusu. From the conversation above, the interpreter who has no medical experience seemed not to be familiar with the word. He asks the doctor to elaborate and it is only after the doctor has explained the term that interpretation continues. The same thing happens in the following parts of the same consultation.

21

D: Are you anorexic?

I: Elaborate on that.

D: Have you lost the sense, the desire to eat?

I: Watibisie ehamu ye khulia? Ye khulia siakhulia? (Have you lost the desire to eat, to eat food?)

/watiβisie ehamu je xulia? je xulia siaxulia/?

22

D: mmmm are you aphonic?

I: eee elaborate on that.

D: Sound perception, can he talk maybe he has lost the ability to phone or to sound or to articulate sounds, to voice well.

I: Onyala walomaloma nende kumumilo kwoo kwa buli nyanga? Namwe esauti yoo yatibile? (Can you speak with your usual voice? Or you have lost your voice?)

/Θɲala walɵmalɵma nende kumumilo kwɵɵ kwa βuli ɲanga? Namwe esauti jɵɵ jatiβile/?

Similarly, the words anorexic and aphonic have no equivalent lexical items in Lubukusu so the interpreter finds it difficult to interpret them and asks for clarification from the doctor.

23

D: So he said that he is feeling that fever? Is it hyperpyretic, pyretic, or is it intenigent?

I: Nono kumubili khubila busa buli saa namwe kulikho nende wakati Fulani namwe kuendelea busa khubila sa pila khukhwima ….

(Now the body becoming hot,all the time or it has time when it stops or is it continuous without stopping?)

/nɵnɵ kumuβili xuβila βusa βuli saa namwe kulixɵ nende wakati fulani namwe kuendelea βusa xuβila sa pila xuxwima/.

24

D**:** Is he dysnic, is he disnic?
I: silence

D: Does he feel difficulty in breathing?

I: Obonanga bulume khuela?

(Do you find difficult to breath?)

/Ɵβɵnaŋga βulume xuela/?

The words bolded in example 23 and 24 have no lexical items in Lubukusu that can sufficiently replace them. There is no one to one equivalent in Lubukusu for the words pyretic, hyperpyretic, intenigent and dysnic in Lubukusu. The interpreter decided to remain silent because he did not understand the words and waited until the doctor simplified it by explaining.

The lexiosemantic constraints were not only caused by the scientific terminologies bolded in the consultation cited above but also by some unique expressions in Lubukusu language. When a patient describes a backache using words like “kuchuna busa ne kwikhilila” or pharyngeal irritation as “ekokopilo ekhala busa” it becomes a challenge for the interpreter.

25

SP: Eee taktari nono mukokopilo muno yani bukhala busa semuli mulai nimwo tawe.

(Now doctor here at the throat, it is just cutting it is not okey.)

/eee taktari nɵnɵ mukɵkɵpilɵ munɵ jani βuxala βusa semuli mulai nimwɵ tawe/.

I: He says it is sour.

The expression kuchuna busa ne kwikhilila literally translates into " it pains as it goes down" which might be understood as the pain in the back is not continous pain or it reduces in intensity but that is not the meaning here , this is an expression used by the bukusu people to describe a kind of pain experienced in the back." Khukhala" is to cut in lubukusu and so the patient is not saying that the esophagus is cutting, again this is an expression that is used to describe a unique irritation in the pharyx. Unique words and expressions in both English and Lubukusu posed linguistic constaints the non-bukusu doctor bukusu patient medical consultations. These constraints were largely overcome by use of borrowing and explicitation interpretation techiniques (section 4.4). In Example 26 below, the interpreter uses words that mean different things when interpreting from Lubukusu into English.

Example 26

SP: Wa wa wa wa nenitakhulakho busa, ouka. Mbona bibindu olichinda. (When I scratch I see things like lice.)

/wa wa wa wa nenitaxulaxɵ βusa, ɵuka mbɵna βiβindu ɵlitʃinda/.

I: He is itching a lot and has observed some insects like lice.

D: Has he used any medication?

I: Warumikhilekho kamalesi kosi kosi? (Have you used any medicine?)

/warumixilexɵ kamalesi kɵsi/?

SP: Senamililekho kamamyasi tawe. (I have not taken any herbs)

/senamililexɵ kamamaŋasi tawe/.

I: He has not taken any herbs

In the conversation above, the interpreter renders the word "nenitakhulakho" as *itching*. The lubukusu word means '*excessive scratching'.* Itching is an irritating cutaneous sensation that produces a desire to scratch. It is the feeling of irritation, the unpleasant sensation one feels on the skin that prompts one to 'Scratch". Scratch was

the right word to be used in the situation above as it means to scrape or rub in order to relieve the irritation (itching). Although the wrong word is used in this case, meaning is recovered by the doctor from the context and the subsequent utterences reveal that the doctor understood what the patient was going through.

27

D: I think that is an allergy, any history of allergy in the family?

I: Mulikho nende allergy mufamili yenywe? (Is there a history of allergy in your family?

/mulixɵ nende alatʃì mufamili jeŋwe/?

SP: Alachi nisio si? (What is allergy?)

/alatʃì nisiɵ si/?

I: What is allergy?

D: Allergy is when somebody reacts to something in the environment like cold, dust or food, when exposed to that environmemt the body developes some changes.

I: Bali kumubili kwoo kwaria embeo, sekwenya embeo eyeyo ta, noluli lufumbi nende embeo eyeyo nono yekasia kamolu ili okhilwa khuela okhwokhwo. (Your body fears cold, it does not want cold, when it is that cold and dusty then it blocks the nose so that you are not able to breath.)

/βali kumuβili kwɵɵ kwaria emβeɵ, sekweŋa emβeɵ ejejɵ ta, nɵluli lufumβi nende emβeɵ ejejɵ nɵnɵ jekasia kamɵlu ili ɵxilwa xuela ɵxwɵxwɵ/.

The interpretation of the word allergy in the extract above gives the interpreter a very hard time. Whether the patient understood what the term means or not, it is difficult to tell. On the part of the doctor she understood the patient's problem and gave the right diagnosis. Allergic reactions in most cases require the patient to understand whatever triggers the reaction in order to avoid it. The absence of an equivalent word for allergy in lubukusu disadvantages such a patient. Table 4.4 below summarizes the medical

jargon that did not have an equivalent in Lubukusu. The words were selected from the recorded dialoques.

Table 4.3 Scientific Terms that have no Equivalents in Lubukusu

Scientific Term	**Interpretation in TT**	**Assesment**	Correct Meaning
Anosmic	Khutibia khuunyila	Well interpreted	Inability to smell
Anorensic	Khutamba ehamu ye khulya	Misinterpreted	Loss of taste
Aphonic	Esauti yoo	Misinterpreted	Inability to sound
Hyperpyrectic	Khuendelea	Khuchililila	Continous
Intenigent	Khuwechaka	Misinterpreted	At intervals
Dysnic	Bulume khuela	Well captured	Difficult breathing
Bacteria	Bibindu bibi	Non interpretable	infection causing organisms
Projectine	Aembi	Properly done	Near
Undulant	…	Non interpretable	Continuos
Metemesis	…	Non interpretable	Blood stained
Paracetamol	…	Non interpretable	A pain killer
Typhoid	Taifot	Borrowed	Typhoid
Amoxyl	Amokisili	Non interpretable	An antibiotic
Syrup	Esirapu	Borrowed	Liquid medicine
Tender	Bufwototokha	Misinterpreted	Painful
Chemist	Mukemestri	Borrowed	A pharmacy
COVID	Kofiti	Borrowed	Corona virus
Allergy	Alachi	Borrowed	Sensitivity to certain situations
Pharmacy	---	Non interpretable	A chemist
Vaccine	---	Non interpretable	A preventive drug
Insulin	---	Non interpretable	A peptide hormone

The ellipsis in the column for the interpreted TL utterance indicate that no interpretation was given for the word. These are cases where the interpreter simply remained silent whenever they were unable to guess the meaning of a word. As observed in the foregoing data, the interpreter had challenges interpreting English medical terminologies into Lubukusu. The observation deviates from Shariati and Shariati (2014) who concluded that the case of translating into one's own language, is considered to be easier than the reverse. Although the interpreters' first language was

Lubukusu, interpreting from English into Lubukusu in a medical setting proved more challenging than interpreting from Lubukusu into English.

4.3.1.3 The Source Language Complexity

Jakobson (as cited in Munday 2001) agrees with Baker's (1992) taxonomy, by observing that, the differences between structures, terminology, grammar and lexical forms of languages are the main reasons of non-equivalence. Baker's taxonomy enaduates the fact that language complexity is indeed a challenge to the achievement of the required level of equivalence. The structural differences between the languages from and into which the interpretation is done cause interpretation constraints. The syntactic formation of Lubukusu is different from English, such differences cause difficulties in interpretation.

Chaves et al. (2005) defines syntax as the study of sentence structure, and of how sentence structure interacts with other dimensions of linguistics information such phonology, morphology, semantics and pragmatics. Syntax encompasses the rules which govern the combination of words to form larger construction above the word. It spells out clearly how words are ordered to form sentences and how words in a given sentence relate to each other. English and Lubukusu are two independent languages and so they do not share rules of syntax. To begin with, the syntactic concept of branching forms part of the syntactic constraints in medical interpretation. Branching in linguistics refers to the shape of the parse trees that represent the structure of sentences. Parse trees that grow down and to the left are left-branching and parse trees that grow down and to the right are right – branching. Syntactically, English has both right-branching (head initial) and left branching (head final) structures. The parse trees exhibited by most noun phrases in English are left-branching language whereas those

in Lubukusu are generally right-branching. The following noun phrases from the two languages are a good illustration of this phenomenon.

In English, the attributive modifiers that are used to describe a noun are added to the left of the noun: Noun: Boy

Det + Noun = A boy

Det + Adj+ Noun= A good boy

Det + det+ Adj+ Noun=A very good boy

Det + Det+ Adj1+ Adj2+ Noun = a very good tall boy

All materials used as attributive modifiers in an English noun phrase appear to the left of the noun. In Lubukusu, such words are added to the right side of the head word. Such that the following NP will be rendered very differently in Lubukusu.

A very handsome intelligent tall young teacher

Omwikisi omulai poo omukesi omuleyi omuraka

(Teacher very good intelligent tall young)

Noun (teacher) + Det (very) + Adj (good) + Adj (intelligent) + Adj (tall) + Adj (young)

This syntactic differences between the English and Lubukusu Noun Phrase are a big challenge in Simultanous interpretation. This study reveals that the differences between the syntax of English and Lubukusu engender interpretation challenges. In the following dialoques extracted from our data, the doctor is trying to create rapport with the patient in order for the patient to be relaxed before the start of the consultation. The doctor asks: How old is Owen? And the interpreter interpretes it as, Owen ali ne kimiaka kinga? “Owen has how many years?” Look at the position of the proper noun Owen in the English question and in the same question interpreted into Lubukusu

28

D: How old is Owen?

I: Owen ali ne kimiaka kinga? (Owen has how many years?)

/owen ali ne kimiaka kiŋga/

SP: Kitaru ne nusu? (Three and a half.)

/kitaru ne nusu/?

I: Three and a half years.

D: Three and a half, this is your firstborn baby?

I: Wakwanza nie owoo? (The first is the one that is yours?)

/wakwanɟa nije ɵwɵɵ/

SP: Mmmm? (Looking confused)

The NP "your firstborn baby" in the extract above is misinterpreted as a result of the syntactic difference in branching. Your firstborn baby in Lubukusu should have been interpreted as, "Oyuno nie omwana woo omubele?" such that the adjective firstborn comes after the head noun "baby". The interpreter's attempt at word for word interpretation interferes with the word order in Lubukusu and ends up giving a completely different meaning as, "the first one is yours?" this question was answered by the SP with a querrying facial expression. The SP looked around to see if there were any other children before she said yes. The doctor wanted to know if that was the SP's firstborn child but the interpreter ended up asking the SP if the first child among those present was hers. In essence medical interpretation between English and Lubukusu needs to take a keen look at the different nature of the two languages in terms of branching in various group categories. In the following two examples we noted syntactic constraints emanating from the different ways that the two languages use to form questions. The order of elements in a typical English question is different from Lubukusu as shown.

29

D: What is your name?

I: Lisina lyoo bali nanu? (Your name is what?)

/lisina ljɵɵ βali nanu/?

SP: Vivian …. Mfupi

D: How old are you?

I: Olinekimiaka kinga? (How many years do you have?)

/Ɵlinekimiaka kiŋga/?

SP: Likhumi ne tisa. (Ninenteen.)

/lixumi ne tisa/.

I: ninenteen.

D: Where do you live?

I: Omenyile wae? (You live where?)

/Ɵmeɲile wae/?

There are three questions in the extract above which are interpreted as follows: 'What is your name? Lisina lyoo bali nanu? Lisina (name) lyoo (your) bali (is) nanu (who). When we put together the elements of the question in Lubukusu it will appear in this form '*Name your is who*?' There is a total overhaul of the English order of these linguistic elements where the last word in the English question is now the first word in the question in Lubukusu. The second question is, How old are you? Interpreted into Lubukusu as Oli ne kimiaka kinga? Oli (you have) ne (with) kimiaka (years) kinga (how many) given as 'You have with years how many?' the third question in this excerpt is, Where do you live? Interpreted into Lubukusu as Omenyile wae? The meaning of individual words in this question is Omenyile (you live) wae (where) put together this question will be 'You live where?' These three questions in the conversation above confirm that the order of elements in a question in English is very different from the question in Lubukusu. The following short example extracted from

one of the simulated consultations contains a question that adds weight to our discussion here.

30

D: How old is she?

I: Bali omwana ali ne kimiaka kinga? (That how old is the baby?)

/βali ɵmwana ali ne kimiaka kiŋga/?

SP: Kimiaka tisa (Nine years)

/kimiaka tisa/

I: Nine years old

D: We shall weigh her.

The question that we are interested in is 'How old is she? Which is interpreted as ali ne kimiaka kinga? Ali "she is" ne "with" kimiaka "years" kinga "how many" when transcribed it will be 'she is with years how many?" These English questions and their interpretation into Lubkusu are a confirmation that the syntactic properties of questions in English are very different from those of Lubukusu. The questions in English invert the ordinary sentence structure of a sentence while questions in Lubukusu are not inverted instead there is only a change in the intonation that differentiates a statement from a question. These syntactic differences between English and Lubukusu make it difficult for interpreters to achieve the required level of equivalence when interpreting between English and Lubukusu.

The linguistic properties of English are different from those of Lubukusu language. Phonetically, morphologically, lexically and syntactically, the two languages are very different. These differences pose numerous challenges to interpreters in a medical consultation as the interpreters have to work out the linguistic processes involved in changing meaning from one language to the other mentally at the same time as they interpret between the non-native doctor and the Bukusu patient.

4.3.1.4 Culture Specific Concepts

Gazhala (2004) studied translation from English to Arabic and established that the two languages belong to two different cultures hence, provide good evidence for the possibility of translating what is sometimes referred to as 'untranslatable' due to non-equivalence or lack of equivalence. The author attests to the challenges of translating culture-specific terms and concepts from one language to another especially when the two language do not share a culture. For the present study, Lubukusu has culturally guarded words that may not have equivalents in English. English also has culture specific concepts which may lack one-to-one equivalent items in Lubukusu. Culture specific items belong to a category of TL non-equivalent because they do not have one-to-one TL equivalent terms.

Orago (2007 observed that culture influences equivalence of meaning between the SL utterence and the TL utterence. Culture, which is a people's way of life, encompasses the manner in which certain people use language, the meaning they assign to words and expressions and the meaning they decode from the same. A good interpreter must as a necessity take into consideration the cultural sensitivities of the parties he or she is interpreting for in order to achieve the required level of equivalence without hurting any party's feeling. The Bukusu people use a lot of euphemism when naming things and body parts that may cause them embarrassment when mentioned to strangers using their real vocabulary. Anyone interpreting into or from Lubukusu must therefore be cognizant of the fact that not all words in lubukusu are interpreted by replacement with an equivalent form in the TL. A number of words are replaced by euphemic terminologies in order to spare the bukusu interlocutor from embarrassment.

For the purpose of interpretation, interpreters need to understand the customs and other cultural aspects that lie between the two different languages (Davies, 2003). Bassnett (2006) pointed out:

> "The translator can at times enrich or clarify the source language text as a direct result of the translation process. Moreover, what is often seen 'as lost' from the source language context maybe replaced in the target language context." (Bassnett, 2006:87)

According to Bassnett (2006), the interpreter's sensitivity and response to the cultural dictates about language use may lead to meaning loss in interpretation. This research recorded loss of meaning in English-Lubukusu interpretation in medical discourse which was caused by differing cultural norms. The loss recorded in the following dialoque occurs as a result of the differing cultuaral norms between English and Lubukusu. Interpreters who have no medical experience avoid mentioning such terms when interpreting for patients with ailments touching on private parts of the body like the case below.

31

SP: Buchafu burura oli kamaira nekhenyala ta bulinga nenja khukhwinyala bibindu birura emubili eyi bisiro mala oli biwanga. (Some dirt comes out that looks like pus before I urinate everytime I urinate some things come from the body, heavy and white)

/βutʃafu βurura ɵli kamaira nexeɲala ta βuliŋga nenɟa xuxwiɲala βiβindu βirura emuβili eji βisirə mala ɵli βiwaŋa/

I: Some thick whitish discharge from the body.

D: which part of the body?

I: Lubeka sina? (Which part)

/luβeka sina/

SP: Nio ninyalilei (where I urinate from.)

/niɵ niɲalilei/

I: The private part.

The interpreter in the above dialogue uses the term “the body” to refer to the male private part which leaves the doctor wondering which part of the body. The doubt is cleared by the use of the general phrase “private part”. The cultural practice of not mentioning some words in public poses a challenge in interpreting between non-bukusu doctors and bukusu patients. Cultural constraints were more common with interpreters who do not have experience in medical issues. It is difficult to transfer culture specific terminologies into another language, particularly when the words are linked to cultural domains (Nida, 2015). Culture specific terms are words and phrases conditioned by the cultural diversity these may cause loss of meaning if not taken with uttermost care by the interpreter.

4.3.2 Contextual Constraints

The present situation during which the interpretation takes place can adversely affect the quality of the interpretation. The physical state of the interpreter, the clarity of the SL utterance the quantity of the utturence and many other issues may affect the entire process of interpretation. In the dialogue below, the patient complains of pain in the chest emanating from the ribs but the interpreter interpretes as lower abdominal pain. The quick succession of utterences in simultenous interpretation may have caused the faulty interpretation.

Example 33

> SP: Wabone ekhololа mala lundi nekhololа ndio yani muchimbafu muno yani kamachukhuru kano mbulila busa bubi sana buchuna sana, lundi kimiuya kiola abundu kienya khukhwima bise bilala.
>
> (You see, I cough then again when I cough like that here in the ribcage I mean these lungs I just feel bad it pains a lot and the breathe reaches a time it wants to stop at some point.)
>
> /waβɵne exɵlɵla mala lundi nexɵlɵla ndiɵ jani mutʃimβafu munɵ jani kamatʃuxu kanɵ mβulila βusa βuβi sana βutʃuna sana, lundi kimiuja kiɵla aβundu kieŋa xuxwima βise βilala/.
>
> I: He has continous coughing with pains in the lower abdomen.

In the following dialogue, the contextual constaint is the quantity of utterance produced by the patient. The patient speaks more than the interpreter can handle to the extent that the interpreter complains. Medical consultations are a very unique setting when it comes to interpretation. Sometimes in such situations the interpreter becomes invisible to the extent that the two interlocutors engage each other without giving the interpreter time to facilitate the exchange. The patient especially may be carried away by their situation and the desire to relay the information so much that they speak to the doctor without stopping to give chance for interretation. Take this extract for example:

34

SP: Nono ese ndikho nende eshida, embeo ne yicha ne kamolu kafungana

(Now me, I have a prolem, when it gets cold, my nose blocks.)

/nɔnɔ ese ndixɔ nende eshida, emβeɔ ne jitʃa ne kamɔlu kafuŋgana/

I: During cold she experiences na…blockage of the nostrils

SP: Kafungana mpaka nekhilwa khulomaloma alafu chisa enchindi nekakhola oli kafungukha ne ka..ka… kamamila kanja khukwikha oli kamechi kamakali kapisa.

(They block to a point where I am unable to speak, then some times when the nose begins to unblock, then a lot of mucus begin to come out, a lot like water.)

I: Wakhatunga lukali aba ndalomandisi? /waxaloma likali aβa ndaloma ndisi/ (You have constructed a long one, now what will I say?)

The moment she experience nasal blockage…olomile olisina? /olomile olisina/ (What did you say?)

The interpreter says, “You have constructed a long one, how do I say it? What did you say? Then the patient repeats the sentence as shown below.

35

SP: Ndikhilwa khulomaloma alafu kamolu kanja khurusia kamamila kamakali oli kamechi

/ndixilwa xuləmaləma alafu kaməlu kaŋa xurusia kamamila kamakali əli kameʧì/

(I am unable to speak then the nose begins to with watery mucus.)

I: During nasal blockage she has history of inability to talk, the moment the nasal unblocks she experiences a running nose which is watery.

The amount of information spoken by the patient at once is one of the challenges posed by the context of interpretation. The mental power of the interpreter determines how much information they can manage at a time yet the nature of medical consultations makes patients feel the need to explain a situation to a given point. This becomes a real challenge to interpreters.

4.3.3 Paralinguistic Constraints

Paralinguistics means alongside linguistics (Schuller, 2010b). Paralinguistics is a discipline that deals with communication phenomena that are used in communication to enrich the verbal message. These may comprise nonverbal means of communication or even connotations of single or bundles of lexical items. Paralinguistics is therefore any mode of communication that does not use strictly linguistic terms to pass the message across. Communication phenomena such as coughs, laughter, pauses and the pitch of the speaker's voice are utilized alongside the speaker's linguistic message to convey meaning. These are means through which an interlocutor supplements verbal speech in an act of communication. The excerpts presented in this section depict what was observed as recorded on the observation schedule alongside what was recorded in the consultations.

36

SP: Kumumilo kuno sekuli kukwase kwa kawaida tawe sendomalomanga nandi ta yani yabilile khebukhala busa paa eneno alafu ekholola nono bwosi bwabele bululu bukali sana? The patient says all these while breathing heavily

/kumumilə kunə sekuli kukwase kwa kawaida tawe sendəmaləmaŋa nandi ta jani jaβilile xeβuxala βusa paa enenə alafu exələla nənə βwəsi βwaβele βululu βukali sana?

(This is not my usual voice) The patient says all these while breathing heavily

I: He is phonic with severe, severe…

D: I can see he is touching the neck here; does he have that pharyngeal irritation?

I: Olaumianga sina ekokopilo? (What are you suffering at the throat?)

/Θlaumiaŋga sina ekəkəpilə/

SP: Eee takitari nono mukokopilo muno yani bukhala busa buri buri semuli mulai nimwo tawe. (The patient uses a gesture to demonstrate the sensation 'cutting at the throat)

/Eee takitari nənə mukəkəpilə munə jani βuxala βusa βuri βuri semuli mulai nimwə tawe/.

I: He says it is sour.

In the example given above here, the patient uses a gesture to reinforce the explanation he is giving to the doctor of how he is feeling first he touches the pharyx to get the attention of the doctor on the exact place that has a problem. The doctor gets to notice this and asks why the patient is touching that part of the neck. It is discovered that he actually has severe pharymgeal irritation that is similar to a cut. When the doctor inquires why the patients was touching that part of the neck, the SP responds by giving a detailed narration of what he is feeling. In this narration the SP uses the words bukhala busa buri buri 'it just cuts like this like this' as he demonstrates with his finger at the neck showing the movement of cutting. Notice that in the first instance, the interpreter had given insufficient interpretation. The SP says, "This body is not my

usual body, I don't normally speak like this infact the throat is just hot and it is cutting paa, here and then I cough then the whole place is so painful," but the interpreter simply interprets this as, "He is phonic with severe, severe…" leaving out three very important symptoms of COVID-19 which the patient had given. The interpreter does not interprete the fever, the cough and the severe pharyngeal irritation. The latter, the pharyngeal irritation, is brought to the attention of the doctor by the SP's use of a gesture. Paralinguistic aspects of communication were not interpreted by the interpreter in this consultation and so it became an impediment to interpretation. The second time the SP states his case a gain the interpreter is unable to interprete the paralinguistic aspects of the utterance. The SP says, 'Eee now doctor in the throat here it is just cutting like this like this, it is not good at all.' But the interpreter reproduces that in English as, "He says it is sour." The interpreter uses the word sour to describe what the patient is feeling this engenders some amount of loss given that the intensity of feeling a sour throat is not the same as the irritation one feels at the throat when one is infected by COVID-19. The interpreter again does not interpret the paralinguistic cue used by the patient. The SP gestures how the throat is "cutting" but the interpreter leaves that for the doctor to decode it by himself. Signs have different meanings and interpretation in different languages and cultures. It is the Obligation of the interpreter to endevour to interpret different paralinguistic aspects that appear in a medical consultation because they too add to the meaning and expressiveness of the utturances (Schuller, 2010b).

Two other paralinguistic aspects are used in this conversation one ideophone 'paa' and a gap filler 'eeee'. The ideophone is used by the SP to emphasize on the intensity of the irritation he is having at the throat. The gap filler is used by the SP again to maintain the flow of his narration but at the same time it may point at the struggle the patient is

going through in order to speak yet he is in pain. All these paralinguistic aspects were a challenge to the interpreter in this extract and he infact does interpret them. As indicated in the foregoing dialoque, the patient is breathing with so much difficulty. This is another paralinguistic cue that is necessary for diagnosis a breathy voice supplements the verbal message given by a patient to the doctor as the doctor can observe by himself that the patient is having difficulties in breathing. This too is necessary for an accurate diagnosis but a big challenge to the interpreters and they end up leaving it out completely.

Coughs for instance are not linguistic events, but they are somehow embedded in the linguistic message of patients in medical consultations and these are vital to the diagnosis made by the doctor. The importance of this paralinguistic cue as captured in the observation sheet for the following consultation is exemplified below

37

SP: Omwana akholola lukali lundi enda emuchuna.
(The child is coughing a lot and has stomachache)
/Ɵmwana axələla lukali lundi enda emutʃuna/
I: He is coughing and has abdominal pain

In this excerpt the paralinguistic aspect is the cough. This is a very essential symptom that helps the doctor make quick diagnosis. The baby is coughing so much infact the mother says so but the interpreter interprets this simply as he is coughing leaving out the words ‘very much’ which actually bring out the level of the cough which is necessary information to the doctor. Here we witness the importance of the paralinguistic aspects of communication in medical interpretation.

38

SP: Wabone ekhololа mala lundi nekhololа ndio yani muchimbafu muno yani kamachukhuru kano mbulila busa bubibusana buchuna sana, lundi kimiuya kiola abundu kienya khukhwima bise bilala.

(You see wen I cough and when I cough here in the ribcage infact the lungs I feel bad it pains, and again I do run shot of breathe some times my breath wants to stop.)

/waβɵne exɵlɵla mala lundi nexɵlɵla ndiɵ jani mutʃimβafu munɵ jani kamatʃuxuru kanɵ mβulila βusa βuβiβusa ne βutʃuna sana, lundi kimiuja kiɵla aβundu kieŋa xuxwima βise βilala/.

I: He has continous coughing with pains in the lower abdomen

In example 38 above, the patient had symptoms of COVID-19 which included a severe cough. When the patient says he suspects that he has contracted COVID-19, the doctor quickly asks if he is coughing and the patient immediately begin to cough as he struggles to give the answer. Coughing is an essential symptom in any medical diagnosis. It is one thing to be told someone is coughing and a totally different thing when you observe how the person coughs. This inclusion of a real cough in these consultations helps the doctore a lot. In the second part of this same consultation the interpreter misinterprets the patient's gesture. The SP says, "You see, I cough and when I cough like that here in the ribcage, I mean the lungs I just feel a lot of pain and then sometimes I find it difficult to breath, my breathe stops at times. But the interpreter interprets this as follows: "He has continous coughing with pains in the lower abdomen." The patient clearly states that he has pain in the RIBCAGE and clarifies this by use of a gesture pointing at the ribs as he says here in the ribcage. On the contrary, the interpreter puts this in English as "LOWER ABDOMEN. This misinterpretation rubberstamps the observation that paralinguistic cues are a real constraint in medical interpretation yet they are a vital component in the transmission of information. Through these, the doctor is able to see for himself/herself the seriousness of a situation and make a decision based on their assesment.

The same holds for laughter and long pauses which display the health state of the speaker, the speaker's emotion and the like (Crystal, 1974). Such signals are very important in medical consultations as is the case in the following extract.

39

I: Likondo lyoo Oscar lyang'ona nga lyo mukhana namwe lyo musoreri? (Is Oscar handsome or beautiful)

/lukəndə ljəə Oscar ljaŋəna ŋa ljə muxana namwe ljə musəreri/?

SP: Eee lyo musoreri. (This was uttered at a high pitch) Then they all laugh…

(For a boy! Handsome)

/eee ljə musəreri/

I: Handsome.

D: Ok so Oscar, is it the first time you are coming to this hospital?

The doctor in this dialogue plays around with the words beautiful and handsome in order to create rapport with the patient who in this case was a young man suffering from a sexually transmitted infection. If the purpose was to make him feel relaxed in order to have an open and fruitful consultation, then the goal is achieved as they all end up laughing before embarking on the real consultation. This laughter informs the doctor about the level of the ailment and the pain the patient is experiencing. In addition, it reveals the mental state of the patient either as one who is stressed up or not. Notice also that the first person to laugh in the conversation is the patient, then in the final incident everyone laughs, the patient, the interpreter and the doctor. Laughter as a paralinguistic aspect is important in medical interpretation but just how can one interpret laughter?

The speaker's voice pictch is another vital sign in communication yet it is a big challenge to interpreters. A high pitch is an indication of anger, anxiety and disagreement. In the conversation below, the SP has been summoned to hospital because her spouse had been diagnosed with an STI. She was just given a card by the husband and asked to take to the doctor but all along the issue had not been broached. She gets the information from the doctor in shock and annoyance. Her speech gives us a real example of how voice pitch is important in communication yet almost uninterpretable.

40

I: Bali kabele nende kamakhua

(He had some issue)

/βali kaβele nende kamaxua/

SP: Eeeh? (Normal pitch)

D: He was having pain while passing urine.

I: Kabele abele nekeyeta aulila buchuni.

(When he helps himself, he feels pain)

/kaβele aβele nekejeta aulila βutʃuni/

SP: Eeeh!!!(High pitch)

D: and after we requested for the lab test, and actually the urine shows there was infection.

I: mala bachile bamupima mulapu mala bali kamenyi kabelekho nende eshida, eshida yabelekhomo kidoko

(He was tested in the lab and it was found that his urine has a problem, there was a small problem)

/mala βatʃile βamupima mulapu mala βali kameɲi kaβelexɵ nende eʃîda, eʃîda jaβelexɵmɵ kidɵkɵ/

SP: Omusecha yuno yesi mala khumbolelakho ta!! Yani koo eeeh!!!basecha bosi bakhakhumale (high pitch)

(This husband! He did not tell me anything, I mean men, men will finish us!)

/Θmusetʃa junɵ jesi mala xumβɵlelaxɵ ta!! jani kɵɵ eeeh!!! βasetʃa βɵsi βaxaxumale/

I: She is complaining that the husband has not told her anything.

D: Ok so when we saw the results we decided that you also should be treated.

I: Bali nga babone akenako babona bali … (When they saw the results, they decided to…)

/βali ŋga βaβɵne akenakɵ βaβɵna βali/

SP: Eeeh, LONG PAUSE, nono aba kambambisie? (Could he have infected me?) (High pitch)

Eeeh, LONG PAUSE, /nɵnɵ aβa kamβamβisie/?

I: Is she likely to be infected

D: Most likely

I: Kanyalikhana? (It is possible)

/kaɲalixana/?

SP: Mala papa Deriki nemukania ndi yikhala asi sebaulilanga ta nono bona, aaa! (and the father of Derick, I warned him to sit down, they never hear, now see aaa!) (High pitch and the interjection 'aaa' indicating pain)

/mala papa deriki nemukania ndi jixala asi seβaulilaŋga ta nɵnɵ βɵna, aaa/!

I: She is complaining that the husband is always out and now he has brought her the disease.

Pitch is another paralinguistic cue that is very vital in communication yet difficult to interpret. The first two utterences made by the SP are mere interjections produced at a pitch that conveys pain and shock. The first one she has just arrived at the doctor's place and she is anxious to know why she has been called. So she responds with a normal voice pith to encourage the doctor to continue. The second interjection is produced at a high pitch to indicate pain and annoyance. The second utterance of 'eeeh' is loaded with emotions and so it is uttered at a high pitch. The SP has now gotten the bombshell that her husband has an STI and so she too needs to be tested and

subsequently treated. When she has recovered from the shock she says, “And this man did not even tell me!! Infact eeeh!!! These men will finish us. All this is said at a high pitch and expression of annoyance and pain. She goes further to ask, “Eeeh LONG PAUSE now has he infected me?” in this utterance only the interjection is produced with a rising intonation and then it falls with the rest of the words showing a feeling of hopeless in the SP. We also take note of the LONG PAUSE between the interjection and the second part of the utterance. Whatever the patient utters after the long pause is an indication that she was silent thinking about the possibility of her being affected by the STI. The final example of the use of pitch in this conversation is when the SP expresses her anger towards the husband by saying, ‘And Derrick’s father, I told him to stop and settle down, they never listen now see, aaa! Here she uses a high voice pitch and the interjection ‘aaa’ as an indication of pain. As observed in the preceeding examples, all the paralinguistic aspects of communication used here convey a lot of important information but the interpreters were not able to interpret them.

41

SP: Khumurwe bubweni, likosi nende kumukongo. (The head, forehead, neck and the back.)

/xumurwe βuβweni, likɵsi nende kumukɵŋgɵ/.

I: On the forehead, the neck and backache.

D: So you suffer the frontal part the osput and the neck?

I: Waumie khubweni emurwe enyuma nende (You were hurt the forehead behind the head and?)

/waumie xuβweni emurwe eɲuma nende/

SP: Nende anano nende khwikosi. Pointing at the neck (And here on the neck)

/nende ananɵ nende xwikɵsi/ (pointing at the neck)

I: The neck

D: Come closer

I: Ichakho aembi nie taktari ali (Come near the doctor)

/itʃaxɵ aemβi nie taktari ali/

D: So, what did he use to hit this part of the head? (The doctor points at the forehead the spot just above the eye)

I: Karumukhila sina khukhupa amoni? (What did he use to heat here?)

/karumuxila sina xuxupa amɵni/?

SP: Karumikhila libale nende chisimbo. (A stone and sticks)

/karumixila libale nende tʃisimβɵ/

I: He used a stone and a stick

The final example of the paralinguistic constraints is seen in the foregoing conversation in two different instances. The first one is when the SP explains how she was assaulted by the husband. She says. 'And here and the neck' as she points at the neck. The SP uses a gesture to show that she was hurt on the neck. The interpreter puts this in English as 'the neck' and does not include the the adverb of place 'THERE' as an attempt at interpreting the gesture given by the patient. The second instance is when the doctor examines the patient and asks, 'What did he use to hit this part of the head?' as he points at the spot. This is interpreted as amoni (at the eye). All these are examples of the paralinguistic aspects of communication that are present in the data in this study. All the paralinguistic events observed by this research were very vital in passing information to and fro in the simulated medical consultations between non-native doctors and the bukusu patients. It is observed that as important as these paralinguistic cues are in medical consultations, they are a big challenge to interpreters.

Crystal (1974) excludes visual communication and the like from the area of paralinguistics and restricts the scope of the term to vocal factors involved in paralanguage. There is a narrow meaning of vocal factors excluding linguistic/verbal factors and a broad meaning including them. This study adapts itself to the broad

meaning of paralinguistics which includes verbal factors such as gap fillers in this field. According to Schuller (2012 p.3) paralinguistics is the discipline dealing with those phenomena that are modulated onto or embedded into the verbal message, be this in acoustics (vocal, non-verbal phenomena) or in linguistics (connotations of single units or of bunches of units). In this study we used the term in reference to anything that a speaker uses to convey meaning but which cannot be assigned a linguistic feature. These encompass all information obtained from vision, the gestures facial expressions and extra-linguistic signals. Many of these paralinguistic features were captured on the use of the observation schedule. Observation was one of the methods of data collection used in this study. While the researcher recorded simulated consultations between non-native doctors and Bukusu patients who are proficient only in Lubukusu, she used an observation schedule to observe the different non- verbal cues that were exuded by the interlocutors as important aspects of communication. In a medical consultation the appearance and the behavious of the patient are vital components that help a doctor to make a diagnosis.

4.3.4 Time Lag

Time lag is the time interval between the Source Language speaker's utterance of the original message in the SL and the time the interpreter utters the interpreted message in the Target Language. This is the time that is spent between the interpreter's hearing of the SL utterance and the time the interpreter utters the same message in the TL during which there are intense mental activities involved in the transformation of the linguistic input from the SL into the linguistic output in the TL. In this study time lag refers to the time that an interpreter takes after hearing what the doctor says in English and the time the interpreter speaks out the same message in Lubukusu to the Bukusu patient and the time the interpreter

takes to interpret what the patient says in Lubukusu to the non-native doctor in English. Consider the following examples:

42

> D: So he said that he is feeling that fever? Is it hyperpyretic, pyretic, is it intenigent?
>
> I: Nono kumubili khubila busa buli saa namwe kulikho nende wakati Fulani namwe kuendelea busa khubila sa pila khukhwima.
>
> /nənə kumuβili βusa βuli saa namwe kulixə nende wakati fulani namwe kuendelea βusa xuβila sa pila xuxwima/.
>
> SP: Chisuku chibili chibirire taktari chichi, kumubili kwabilile busa kwosi mala kuchukha busa lukesi ndakorwanga sina sibi ta mala ekhabonakho ndio ta, khukholola khwosi khwabele angaki sana ekhabonakho ndindi tawe taktari tawe sisienesi nisio sikilile nenicha ndi mundolelkho wakana ndi nende bwalelo nibwo baloma bali khana bwamila waena eyo.
>
> /ʧisuku ʧiβili ʧiβirire takitari ʧitʃi, kumuβili kwaβilile βusa kwəsi mala kutʃuxa βusa lukesi ndakorwaŋga sina siβii ta mala exaβənaxə ndiə ta, xuxələla xwəsi xwaβiele aŋaki sana exaβiənaxə ndindi tawe taktari dawe sisienesi nisiə sikilile nenitʃa ndi mundəlelxə wakana ndi nende βwalelə niβwə βaləma βali xana βwamila waena ejə/.
>
> I: He is saying that in the past few days, he has had continous sweating and hotness of the body and now he is thinking that it is the famous covid.

In the conversation above, the interpreter encounters a challenge in that the patients speaks nonstop and by the time the patient pauses, the interpreter has lost some very essential information. At the beginning of his speech, the patient states that he had had the problem for the past two day, "chisuku chibili chibirire chichi" / ʧisuku ʧiβili ʧiβirire ʧitʃi/ because of the long time taken to explain his situation, the interpreter forgets the exact number of days and simply says, 'In the past few days' in medical diagnosis time is very crucial and so the mention of the exact number of days by the patient was vital. But due to time lag the interpreter gives a general time span. In the same utterance the patient complains that he has been coughing a lot "khukholola khwosi kwabelenge angaki" this phrase that contains an important symptom is not

interpreted at all. This happens because of the large volume of utterance produced by the patient just at once. The huge chunks of information prolong the time between the speaking of the first SL linguistic material and the time the interpreter renders it in the TL speech. It can be observed in this excerpt that the longer the waiting the less the accuracy, the larger the linguistic material the heavier the mental load on the interpreter and all these reduce the equivalence level. This study agrees with Cokely (2014) who compared the count of miscues in actual interpreter performances with interpreters' lag time and noted an inverse relationship between the amount of lag time and the number of interpreter errors.

43

SP: Takitare mwana wa papa papa sekhubea ta kumurwe kutanya, kumurwe kukhola busa kuli pupupu, embeo takitare embeo engali nibiimba busa kamarungeti ata sita lakini embeo. Embeo engali nelundi kumubili kubila nende enda yosi erema. Eremela busa muno muno eeh!

(Doctor, my fathers child, I am not lying the head is aching, it is just aching pupupu. The cold it is too cold at night I have to cover myself with even six blankets but still feel cold. There is a lot of cold and the body gets hot and the stomach cuts, it just cuts here here eeh!)

/takitare mwana wa papa papa sexuβea ta kumurwe kutaɲa, kumurwe kuxəla βusa kuli pupupu, embeə takitare embeə eŋgali niβiimβa βusa kamaruŋgeti ata sita lakini embeə embeə eŋgali nelundi kumuβili kuβila nende enda jəsi erema. eremela βusa munə munə eeh/

I: She is saying that in the night she is very sick feels fever and abdominal pain.

We observe the same trend noted by Cokely (2014) in example 43 above. The SP in this example was enacting the role of an elderly patient she had just encountered in a real doctor patient interaction. Such elderly patients usually have a lot to say about any given situation so she speaks quite a mouthful and in the long run the the interpreter is unable to remember all the important symptoms enumerated. The interpreter interprets only two symptoms out of the four that the patient had given. The patient complains

of headache, abdominal pain, fever and chills of cold at night. The interprer left out the 'headache and cold chills and added fever which the patient had not mentioned due to the challenge of time. As much as the speed of speech delivery may not be a big challenge in medical interpretation, the volume of the speech given at once is a real challenge. We take note that here again symptoms that are very vital to making an accurate diagnosis are left out in the interpreted content because of the huge chunks of information uttered by the patient at once. In this example, the symptoms that were said earlier in the patient's speech are the ones that are left out or misinterpreted. Headache and cold chills appear in the first sentence which is followed by many other words. The word 'Kumurwe kutanya" (headache) is left out completely and the word "embeo" (cold chills) is perhaps misinterpreted as 'fever'. Here we observe a good example of how time lag engenders misinterpretation. A similar situation is observed in the next example.

44

SP: Nono ese ndikho nende eshida, embeo ne yicha ne kamolu kafungana

/nənə ese ndixə nende eʃida, emβeə ne jitʃa ne kaməlu kafuŋgana/

I: During cold she experiences na … blockage of the nostrils

SP: Kafungana mpaka nekhilwa khulomaloma alafu chisa echindi nekakhola oli kafungukha ne ka...ka… kamamila kanja khukwikha oli kamechi kamakali kapisa.

/kafuŋgana mpaka nexilwa xuləmaləma alafu tʃisa etʃîndi nekaxəla əli kafuŋguxa ne ka...ka...kamamila kanɟa xukwixa əli kametʃî kamakali kapisa/.

I: Wakhatunga lukali aba ndalomandisi? The moment she experience nasal blockage…olomile olisina? (What did you say)

/waxatuŋga lukali aβa ndaləmandisi/?

SP: Ndikhilwa khulomaloma alafu kamolu kanja khurusia kamamila kamakali oli kamechi

/ndixilwa xuləmaləma alafu kamələu kanɟa xurusia kamamila kamakali ələi kametʃì/

I: During nasal blockage she has history of inability to talk, the moment the nasal unblocks she experiences a running nose which is watery.

In the extract above, the interpreter faces the challenge of time similar to those discussed ealier. The patient speaks for a long time without letting the interpreter in, to the extent that the interpreter interrupts by saying, 'wakhatunga lukali aba ndalomandisi?' (You have constructed a long one now what do I say?) She tries to interpret and realizes she can remember only one thing 'nosal blockage' out of the many that the patients had spoken. The interpreter saves the situation by asking the patient to repeat what she had said, "Olomile olisina" (What did you say? And the patient repeats her explanation and the interpreter picks the pieces that had been left out making this interpretation event successful. Waiting time, in other words time lag, influences satisfaction in an interpretation event (Ad Pruyn, 1998). The patient in the consultation above may not have full confidence in the interpreter as she witnessed the interpreter struggle with the challenge of time. It is evident in this consultation that time lag is a real impediment in simultenous interpretation especially medical interpretation which can be overcome by use of repetition. In the next example the interpreter is faced with a huge volume of words to interpret which he misinterprets as a result of lag time.

45

SP: Nakhalia sisindu taktari seniulilakho mukhanwa ndi khendia ta yani echamu yatibile mukhanwa wakhara sisindu mukhanwa sewiulilakho oli okholia sindu tawe.

(Even when I eat something Doctor, I don't feel in my mouth that I am eating, in fact there is no taste in my mouth even when I put anything in my mouth I don't feel like I am eating anything.)

/naxalia sisindu taktari seniulilaxə muxanwa ndi xendia ta jani etʃamu jatiβile muxanwa waxara sisindu muxanwa sewiulilaxə ələi əxəlia sindu tawe/

I: Complete loss of appetite over any food.

D: So you are saying that you are anosmic?

The SP says, ‘Even when I eat something I don’t feel the taste of it in my mouth, infact I don’t feel the taste infact there is no taste in my mouth even when I put anything in the mouth I don’t feel like I am eating anything.’ Notice that the patient is talking about complete loss of taste. The interpreter tells the doctor that the patient has a ‘complete loss of appetite over any food’. This is misinterpretation probably caused by the huge chunk of linguistic material produced over a limited time span. The Bukusu word ‘echamu’ refers to taste and not to appetite as the interpreter put it. In Lubukusu when one has lost appetite it is said ‘kumwoyo kwalobile bilio’ which literally translates as ‘The heart has refused food’. Back to the case above, the SP was enacting the role of a patient suffering from covid 19 so the patient was referring to loss of taste. The misinterpretation misleads the doctor to think of anosmia as a possible cause for the loss of appetite, ultimately, loss of smell as a symptom is not interpreted and perhaps not considered in the diagnosis.

Simultaneous Interpretation as a translational activity has the feature of immediacy. Immediateness, as an integral part of simultaneous interpreting is an element which keeps the interpreting activity live and dynamic (Cokely, 2014). The interpreter’s management of time lag also known as the ear-voice span (EVS) is a very valuable measure of the effectiveness and success of the interpretating process. We carried out a close examination of instances of the interpreter’s ability to manoeuvre the EVS challenges in the following examples and observed that EVS is one challenge that an interpreter has to overcome in order to succeed in interpretation. Time lag in the following extracts is presented in two different forms: One form is the speed at which the interlocutors utter their SL linguistic content and the second form is realized in

the difficultness of the terminologies used which requires more time to interpret. In the conversation elucidated below, the doctor uses medical terminologies that are foreign to the interpreter causing difficulties in interpretation.

46

SP: Ata sebiola munda ta. (The food doesn't even reach the stomach)

/ata seβiɵla munda ta/.

I: It is instant vomiting after meals.

D: So how is the vomitus? Postgratio or post projectine…mmm is the vomitus postgratio or projectine?

I: Explain doctor explain

D: Does the baby vomit aaa the vomit the way it comes out does it fall far or just within on clothes?

I: Narusia kamarusio kewe kachuchukhanga aleyi namwe kachichukha sa aembi.

When the baby vomits, does the vomit fall far or just near, does it fall near?)

/narusia kamarusiɵ kewe katʃutʃuxaŋga aleji namwe katʃitʃuxa sa aemβi/?

SP: Embi sa, mubikele mwewe. (Just near, at his feet.)

/emβi sa, muβikele mwewe/.

I: He vomits near

D: Near, projectine okay. And then you say that the baby is feeling hot.

In example 46, the doctor uses a number of scientific terminologies which require the interpreter to take a bit of time before finding an equivalent in Lubukusu if there is any or to construct a suitable explanation of the word in Lubukusu. The constraint of time in the medical consultation does not allow the interpreter to think through these words and some times we end up with a misinterpretation. In the first instance the doctor uses the words vomitus, Postgratio and post projectine which the interpreter is not familiar with to a point where the interpreter has to seek clarification from the doctor of what

he means in order for the interpretation process to continue. The second instance is the use of the word undulant; we note the hesitation by the interpreter before giving the information to the patient in Lubukusu. In medical interpretation lag time as a constraint can be experienced in the difficultness of finding an equivalent form of the scientific jargon in Lubukusu which calls for more time and more mental activitiy on the part of the interpreter in order to give a relevant explanation. The next example drawn from the same consultation presents the speed of speech delivery as the second aspect of time lag discussed earlier in this subsection.

47

D: Is he persistent in feeling the hotness of the body or undulant?

I: Abechanga busa abilanga kila bise namwe khumuda fulani ne abasa omulai?

/aβetʃaŋga βusa aβilaŋga kila βise namwe xumuda fulani ne aβasa ɵmulai/?

(Does he get hot all the time or only some time then he becomes okey?)

SP: Yaani akilao yani nga sai alibusa bulai nga chola busa chisa fulani yani salikho nie ta.

/jaani akilaɵjani ŋga sai aliβusa βulai ŋga tʃɵla βusa tʃisa fulani jani salixɵ nie ta/.

(Some times like now he is just okey then after some time then it is no longer him)

I: He keeps on changing not all the time**…**

D: Okey and then the cough?

I: Ne khukhololа? (And the cough?)

/ne xuxɵlɵla/?

In example 47 above, the doctor speaks too fast and does not give the interpreter sufficient time to interpret fully what the SP has said. Notice the use of ellipsis at the end of the interpreter's speech which is an indication of interruption. This forces the interpreter to interpret at a high speed which may lead to misinterpretation.

Interpretation involves numerous heavy mental activities to transform the SL message into TL before the actual utterance is made verbal by the interpreter in the TL. This process requires time which an interpreter in SI does not have. The speed at which the different interlocutors deliver their SL material makes this already tight act of interpreting tightier and more challenging to the interpreter. In the following conversation, the interpreter experiences time constraints engendered by both, speed of delivery and the difficultness of the scientific jargon used. The patient in this consultation has complained about a cough and the doctor is making inquiry on the nature of the cough, whether it is a dry or wet cough and whether it has blood stains or not. He uses medical terms that are new to the interpreter making it challenging to interpret. While the interpreter is struggling with the difficult medical terms the doctor keeps on interrupting and speaking too fast that the interpreter has to struggle with this pace sometimes leaving sections of the message uninterpreted.

48

D: Productive?

I: (the interpreter is silent)

D: He is having metemesis?

I: Explain (the interpreter requests for an explanation of the terminology)

D: Does he have metemesis? Is the cough…does it have any blood stains?

I: Nakholola kamakhaso ako kabechanga khomo nende kamafuki?

/naxɵlɵla kamaxasɵ akɵ kaβetʃaŋga xɵmɵ nende kamafuki/?

(When he coughs, does the cough have blood?)

SP: (nodding) mmm kimikhaso busa

(nodding) /mmm kimixasɵ βusa/

I: It is just the normal… (The doctor interrupts the interpreter)

D: Diarrhoea?

I: Ayara namwe seayara ta? (He diarrhoeas or he doesn't diarrhea)

/ajara namwe seajara ta/?

SP: Ayarakho ne lundi nalilekho sindu lundi achasa achoo sa kawaida lakini acha busa buli khusa mala aba se kalile ta

/ajaraxɵ ne lundi nalilexɵ sindu atʃasa atʃɵɵ sa kawaida lakini atʃa βusa βuli xusa mala aβa se kalile ta/

(He diarrhoeas and when he eats anything he just produces normal stool but he goes there all the time even when he hasn't eaten.)

I: Continous diarrhea even minus feeding.

D: So, the baby has diarrhea?

In the foregoing extract, a mother had brought a sick child to the doctor. The baby has a cough and diarrhea among other issues. The doctor is speaking really fast and is using scientific words that are new to the interpreter and these are an epedement to the interpretation process. The first instance is when the doctor asks if the cough is Productive and the interpreter remains silent as an indication that he has not understood the word. The doctor then uses the word metemesis to explain the term productive and this worsens the situation until the doctor uses simpler words 'blood stained'. The use of the two medical terms within one utterance puts pressure on the interpreter as he neither knows the meaning of the terms nor has time to consult any other source. Another challenge exhibited in this extract is the speed at which the doctor delivers his speech. The doctor is too fast, he does not give the interpreter ample time to interpret. In fact, he interrupts the interpreter while the interpreter is still speaking by asking the next question whether the child has diarrhea or not. There is so much pressure on the interpreter in this extract which interferes with his performance and consequently with the quality of interpretation as can be observed in the following excerpt.

49

D: Any episodes of feats? Any episode of feats? Is the baby feating?

I: Omwana aliasa bulai namwe? (The baby is just eating well or?)

/Ɵmwana aliasa βulai namwe/?

SP: Khulia alia sa bulai lakini... (Eating he just eats well but…)

/xulia alia sa βulai lakini/

I: He is just feeding well but…

D: Is the baby convulsing? Any episodes of convulsions?

I: Omwana kesindukha sindukhakho? (Does the baby get startled?)

/Ɵmwana kesinduxa sinduxaxɵ/

SP: Yee

/jee/

I: He has convulsions.

This last example elucidates the effect of time lag on the quality of interpretation. The words in bold in the extract are not clearly interpreted and we end up with a complete misinterpretation. The doctor asks if the baby has feats if the baby is feating (Whether the baby is having convulsions) but the interpreter thinks the doctor is talking about feeding and so he interprets it as 'alia' (feed). When the interpreter tells the doctor that the baby is 'feeding' well, the doctor interrupts him by asking if the baby has convulsions. The word convulsions is interpreted into Lubukusu as 'kesindukha' which means getting startled like babies normally do when experiencing a dream in their sleep. Basing on the meaning of the word 'kesindukha' in Lubukusu the SP says yes which the interpreter passes across as the baby is having convulsions. This is a very serious misinterpretation in medical interpretation that can lead to a misdiagnosis.

This prompts the doctor to quickly make a physical examination of the baby. What is noted in this example agrees with Cokely (2014) who observed that reduction on the EVS time leads to an increase in the interpreter's errors and subsequently yields lowere levels of equivalence.

Linguistic and cultural differences between English and Lubukusu lead to increased amount of mental load on the interpreter causing a longer waiting time. Exerting pressure on the interpreter in medical interpretation causes the interpreter to make more errors in interpretation and accordingly resulting to low quality interpreting characterized by low equivalence.

The lack of sufficient time for the interpreter to internalize and sufficiently process the Source language speech coupled with the absence of repetition and correction of the original message, make the control of the flow of communication difficult, sometimes disrupting it completely. Waiting time, in other words time lag, influences satisfaction in an interpretation event (Ad Pruyn, 1998). It can be deduced that the cognitive load and cognitive processing involved in the interpretation process in a medical setting is complex. In medical interpretation the interpreter has to interpret into and from each of the languages involved an interpretation event that we have described as 'Two Way'. In this case each of the languages (English and Lubukusu in our case) is considered a source and a target language at intervals depending on whether it is the patient or the doctor speaking. This calls for more mental activity on the part of the interpreter and when given limited time then there is an increase in interpretation errors as observed in the data. The results show an inverse relationship between the amount of lag time and the number of interpretation errors. If the EVS time is reduced either by packaging too many linguistic materials for a limited time or by speaking too fast, then an increase in interpretation errors is observed. This relationship has serious implications

for interpreter educational programs, interpreter assessment programs and healthcare assessment programs. One instrument on the interpreter's questionnaire asked the interpreter to tick the interpretation constraints that they encountered in the course of interpreting between non-native doctors and bukusu patients. The ineterpreters were given choices of interpretation constraints and were asked to tick all the constraints that they encounter. The results were as shown in Fig 1 below.

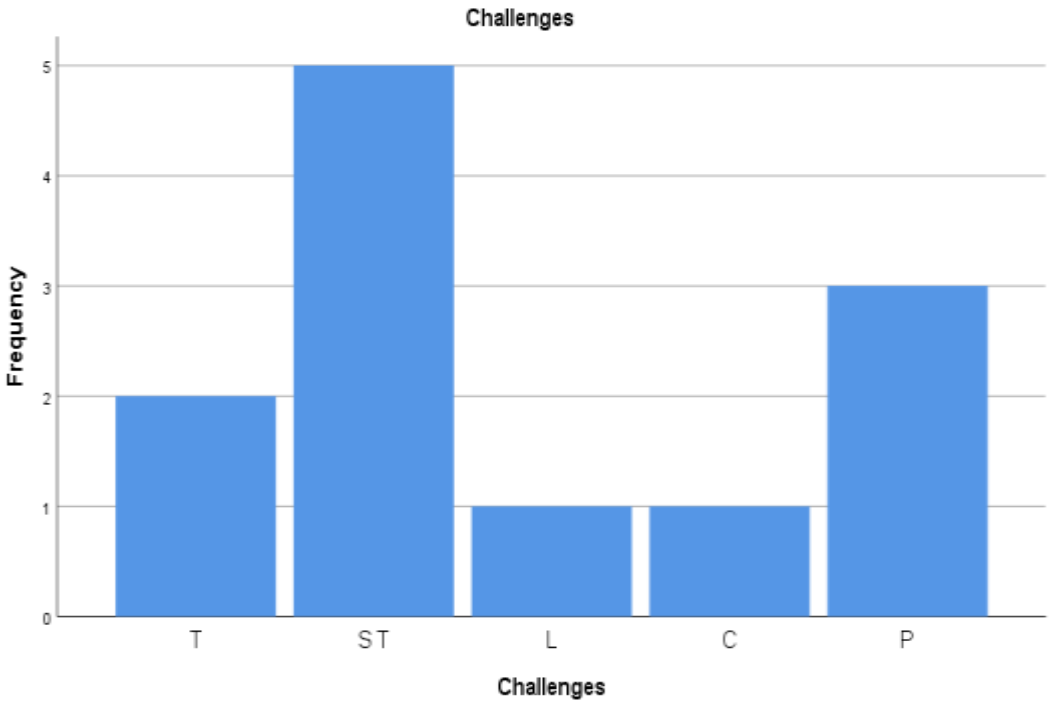

Figure 4.**1 Ranking of Constraints**

On the Figure 4.1 above, the letter T stands for Time lag, ST for Scientific Terminology, L for Linguistic constraints, C for Cultural constraints and P stands for Paralinguistic constraints. Although the difficultiness of scientific jargon is part of linguistic constraints, it was analysed separately in this study as the study sought to establish the interpretability of such terms. This proved to be the most common constraint. Five out of the twelve interpreters selected scientific jargon as the most difficult hurdle in medical interpretation. Three of them indicated that paralinguistic

cues were their hardest part of interpretation, two felt time lag was their biggest challenge and language and culture were chosen by one interpreter. The results obtained from the interpreter's questionnaire concerning interpretation constraints prove that medical interpretation is not a walk in the park, it is riddled with a number of challenges and interpreting medical terminologies is the most challenging.

Simulteneous interpretation by its nature puts time constraints on the interpreter as the interpreter has very limited time to process information and pass it on to the target audience. The interpreter in simultaneous interpretation does the interpretation at the same time when the speaker is speaking. Medical interpretation is more complex than one-way interpretation the kind that is done in churches during the sumorns. Church sermon interpretation is a kind of a one-way interpretation where there is only one speaker and the audience is passive. The audience in this one- way interpretation process is not expected to give any feedback so the interpreter's mental work is lighter because it is a one directional flow of linguistic material from language A to B. In this study we shall refer to this type of interpretation as 'linear interpretation'. In a medical consultation, both interlocutors are actively involved in the communication process and so the interpreter has more mental activity where he or she has to transport information from language A to language B and then from language B back to language A at the same time as the doctor and the patient converse. We shall refer to this type of interpretation as 'Two-Way' interpretation in this study. Time is of essence in a 'Two-Way' type of interpretation and this kind of pressure leads to miscues and misinterpretation by the interpreter.

Cokely (2014) provides evidence that imposing time constraints or expectations upon interpreters results in inaccurate interpretation and an increase in interpreter errors or miscues. The speed of talk in a linear type of interpretation is a big challenge then the situation gets worse when it comes to the two-way interpretation type. Time as a constraint

in interpretation is also realized in the volume of utterences given by the interlocutors at once in an act of communication. In this study, interpreters faced interpretation challenges when the interlocutors especially the patients gave long explanations of what they were feeling. It was noted that patients could get carried away by their sickness and the fact that they were addressing the doctor and forget about the interpretation thus speaking for long without giving the interpreter a chance to interpret manageable chunks of information.

4.4 Interpretation Strategies

Whenever an interpreter embarks on interpreting either into a native or foreign language, he may encounter many difficulties that evoke adjustments in speech. These adjustments, which may result in successful or unsuccessful interpretation into the target language, are called strategies. There is a growing interest among researchers in the analysis of communication strategies employed by interpreters as they seek to convey messages from the source language into the target language.

Our data reveals that interpreters resorted to strategies such as: Filtering, Generalization, Reduction, Shifts, Borrowing, Explicitation and Addition (Wang, 2012). These strategies are discussed in the following sub-sections.

4.4.1 Filtering

Filtering is the withholding of information in order to manage a person's reactions and maximize the chances of sending and receiving effective communication. This technique of interpretation is essential in medical interpretation. According to Musyoka (2014), when interpreters are faced with the challenge of overlapping during performance, they resort to filtering in order to maintain the required level of equivalence. This study reveals a number of situations where patients are carried away by their pain and sickness to a point where in the cause of presenting their issues in the consultations, they end up telling more than is necessary. There were cases where the

patient could speak on and on without pausing for the interpreter to handle manageable chunks of information. The interpreter's goal is to deliver the necessary information required by the doctor to make sufficient accurate diagnosis. In the absence of appropriate turn taking in the consultations, the interpreter resorted to filtering. A number of consultations recorded indicate that interpreters Filter the unnecessary information and relay only what is required for diagnosis. In the dialogue below, the interpreter interprets by filtering:

50

SP: Tawe khapime buchunwe bukhilile.
/tawe xapime βutʃune βuxilile/

(Let him test, the pain is too much.)

I: He is ok with that

D: The urinalysis shows that there is pus in the urine.

I: Kamaira kali mumenyi

/kamaira kali mumeɲi/

(There is pus in the urine.)

D: But H.I.V is negative but we shall repeat the test after three months

The words in bold are left out in the interpreted utterance. The SP says, "Tawe khapime buchunwe bukhilile" /tawe xapime βutʃune βuxilile/ which translates as, "No let him test there is a lot of pain". But the interpreter only says, "He is ok with that", a statement which suffices in the context. In the second statement, the words, "The urinalysis shows" are left out in the interpreted utterance. The interpreter simply tells the patient that there is pus in the urine avoiding the term urinalysis which lacks an equivalent in Lubukusu. Example 50 above is an illustration of interpretation by filtering. The interpreter left out some words in the original utterance but this did not interfere with the meaning.

The assigning of the term Source Language (SL) or Target Language (TL) in the examples used in this chapter depends on who is being interpreted in the given discourse. When the interpreter is transferring the doctor's message from English into Lubukusu then the doctor's utterance in English is regarded as the Source Language (SL) and the interpreter's words in Lubukusu will be the (TL). When the interpreter's mission is to pass the patient's Lubukusu message into English for the doctor. Then Lubukusu is regarded as the Source Language (SL) and the new utterance in English will be the (TL)

51

SP: Omusecha yuno yesi mala khumbolelakho ta! Yani koo eeh basecha bosi bakhakhumale

/ɵŋusetʃa junɵ jesi mala xumbɵlelaxɵ ta! jani kɵɵ eeh βasetʃa βɵsi βaxaxuŋale/

(This man and he never told me! In fact eeh! This men will finish us.)

I: She is complaining that the husband has not told her anything.

In the dialogue above, the interpreter applies the filtering interpretation technique where he leaves out the entire phrase that is in bold. Essentially, the full interpretation should have been: "And this man also, he did not tell me anything! I tell you eeh, these men will finish us." Notice that the last phrase which is in bold was not translated since it obviously does not aid in the making of the correct diagnosis. In the interest of time, the interpreter removes an entire phrase that is in bold above as he interprets only the first part of the patient's utterance which is necessary for proper diagnosis.

52

D: Yes, welcome, how can we help you?

I: Khukhuyetakho khurie?

/xuxujetaxɵ xurie/?

(How can we help you?)

SP: Ese takitare chisuku chibili chibirire chino neninyala mbulila buchuni

/ese takitare ʧisuku ʧiβili ʧiβirire ʧinɵ neniɲala mbulila βutʃuni/

(Me doctor, the last two days that have past, when I pass urine I feel pain.)

I: Pain on micturation

D: For how long

I: Chisuku… two days

/ʧisuku/... (days…) two days

In this second example, there are two instances of filtering. The first one happens in the first statement that the doctor utters. The doctor welcomes the patient before asking how he can help the patient, he says, "Yes welcome, how can I help you". The interpreter leaves out the words in bold which are meant to create rapport between the doctor and the patient before the consultation begins. The doctors' intention was to make the patient relax and feel appreciated as he knew the healing process begin when one is shown appreciation. The interpreter fails to transmit this important aspect of treatment and healing. The second instance is where the interpreter filters the second phrase that is in bold to the disadvantage of the doctor. The patient says, "Me doctor the past two days when I pass urine I feel pain." The phrase that is left out in this case is very vital to the doctor for making the right diagnosis and so the doctor asks, "For

how long?" As the interpreter begins to interpret this she realizes that the patient had already given that information which she had filtered. In an act of self- monitoring and correction, she stops midway in the interpretation of the question and answers the doctor by giving the required information 'two days.' This removal or withholding of information is what is referred to in linguistics as the filtering strategy of interpretation.

4.4.2 Generalization

Generalization occurs when a word with a specific meaning is used to mean more than its usual specified meaning. In generalization, a word with a limited meaning is used in a wider range of meanings as a way of making the information clearer. Precicion in meaning is the goal of interpretation in medical interpretation. To achieve this, the meaning of words in an interpretation process is broadened in order to clarify information. The following excerpts from one of the consultations reveals a situation where the interpreter uses a hyponym in order to avoid an embarrassing word.

53

SP: Buchafu burura oli kamaira nekhenyala ta buli nga nenja khukhwinyala kimindu kirura emubili eyi kimisiro mala oli miwanga.

(When I pass urine something like pus comes out, something heavy and whitish comes out at the 'body')

/βutʃafu βurura ɵli kamaira nexeŋala ta βuli ŋga nenɟa xuxwiŋala kimindu kirura emuβili eji kimisiro mala ɵli miwaŋga. /

I: Some thick whitish discharge from the body.

The interpreter uses a general term 'body" to avoid the name of the organ being talked about. In Lubukusu this part of the body is euphemically called "Kumubili" which is translated as "the body." The doctor unaware of this culturally connotated meaning wants to know the exact place, a question that is answered by the interpreter by way of generalization as "the private part". Generalization as a strategy of interpretation

suffices when interpreting for two people with differing cultural backgrounds and beliefs. Lubukusu has culturally guarded words that are expected to be used among agemates or people who are in an intimate relationship. Such words include names of some parts of the body and actions revolving around them. In the place of the real names, euphemic terminologies are used. Interpreting such terms for a non- Bukusu patient can be challenging and so culture becomes one of the constraints in medical interpretation discussed in the proceeding section (4.3).

54

D: Yes, so do you think you have infected your partner?

I: No para waambisie mama woo engo?

/nɵ para waambisie mama wɵɵ eŋgɵ/

(Do you think you have infected your mama at home?)

The interpreter interprets the word partner as ‘mama’ which means mother in Swahili, Swahili word mama acquires a new meaning in this conversation. The word ‘mama’ which would be translated as ‘mother’ in English has been used to mean ‘wife’. This comes from the borrowed Swahili phrase, ‘mama watoto” which means ‘the mother of the children’. The term commonly used to refer to wives by some Bukusu men, has slowly dropped the word ‘watoto’ and remained as a single word ‘mama’ with the extended meaning of wife. In Lubukusu, the equivalent word for wife is ‘omukhasi’ which is also used to mean a woman. So ‘omukhasi wa’ means so and so’s wife and ‘omukhasi wange’ means my wife. The alternative synonymn is ‘omukhaye’ used only for respected wives. ‘Omukhaye wange’ (my wife) conveys a lot of love, respect and reverence for such a woman. The extension of the meaning of the word ‘mama’ in this extract is another example of generalization strategy.

55

SP: Omwana ata omwana nga nali seayetangakho omwana ta.

/ɵmwana ata ɵmwana ŋga nali seajetaŋgaxɵ ɵmwana ta/

The child even as the child is, he doesn't help the child.

I: She is complaining again that a… after giving birth to that baby the husband does not even help that family.

In this fifth example, the SP complains that the father to her son, who had assaulted her, does not support the child 'omwana'. The interpreter generalizes this in his interpretation as 'that family'. The word 'omwana' which refers to a single young human being is interpreted to mean more than one person in the TT. This is another example of generalization.

56

SP: Kumubili kubila busa kwosi lakini bikele bianyirire busa chi!

/kumuβili kuβila βusa kwɵsi lakini βikele βiaɲilire βusa tʃì/

The body gets hot the whole of it but the feet are just cold chi.

I: The whole body is hot but downwards it is cold.

In this sixth example the SP says that the whole body gets very hot but the legs (bikele) are very cold. The interpreter interprets the word bikele (legs) using the word downwards which is more general. The word downwords when used in relation to parts of the body might mean all the sections of the body from the waist all the way to the feet. The use of this word does not help the doctor to understand the exact part of the body that gets cold. Generalization as a strategy of interpretation does not suffice in medical interpretation. Precision of meaning is one basic requirement in medical interpretation. The doctor needs to know the exact place that is affected by an ailment

in order to administer treatment correctly. Using general terms in medical interpretation leads to loss of meaning.

4.4.3 Reduction

Reduction is one of the interpretation strategies observed in this study. This is the compression of loose structures and redundancies in the source text. Interpreters compress loose structures and redundancy in the source text and make them streamlined in the target language expression (Wang, 2012). In reduction huge chucks of information from the source language are reduced into smaller ones in the target language. In the text below, the patient is explaining her condition, how she got injured by an assailant. She ends up giving a detailed account that includes a vivid description of how, where and when it happened. The interpreter reduces the text by leaving out all the words that are in bold as shown in example 57.

57

SP: Likoloba nakanane nende papa womwana omwana alianjaa. Kabele nende mama okundi sasa ange se nabele khenja khulola omwana wefwe wesikhana mutinga babele bamurumile chabele saa mocha enge nachile abele akhaminamina lusimu nge nachile ne kandila ariri enyuma, abele nafwarire e t-shirt ya pinki ne kandila ariari enyuma *nekakhhupa luyi nekakhupa nende libale*.

/likɵlɵβa nakanane nende papa wɵmwana ɵmwana alianɟaa. kaβele nende mama ɵkundi sasa eŋe se naβele xenɟa xulɵla ɵmwana wefwe wesixana mutiŋa βaβele βamurumile tʃaβele saa mɵtʃa eŋe natʃile aβele axaminamina lusimu ŋe natʃile ne kandila ariri eɲuma, aβele nafwarire e t-ʃati ja piŋk ne kandila ariari eɲuma nekaxupa luji nekaxupa nende liβale/

I: She was slapped by a person known to her who also used a stone to bruise her forehead.

In example 57 from the above consultation, only the words in italics have been interpreted as the interpreter asks the patient "*What brings you here today*?" The words "Ok what's your complain" are left out. Similarly, the patient's speech is not

fully interpreted. All the words in bold type are left out. The patient's speech in full can be translated as follows: Yesterday I met the father to my child who is out there (the child). He was in the company of another woman now as I was going to check on my sister at the poshomill, they had sent her to the poshomill it was around 7 pm. When I went, he was pressing buttons on the phone as I went then he grabbed me like this from behind (she demonstrates), I was wearing a pink t-shirt, then he got hold of me from behind, *slapped me and hit me with a stone.* Thus the doctor's speech is condensed into fewer words as well as the patient's long haranque. The interpreter utilizes reduction strategy in order to relay the specific precise information that is needed for diagnosis in this medical consultation. Similarly, the dialogue below is an illustration of reduction strategy in interpretation.

58

SP: Omwana akholola lukali
/ɵmwana axɵlɵla lukali/
(The child is coughing a lot.)
I: He is coughing
SP: Kumubili kubila sana
/kumuβili kuβila sana/
(The body gets very hot.)
I: He has fever

In this conversation, the patient uses the intensifier "too much" and "a lot" which are not reproduced in the target language. The patient says "the child is coughing a lot" captured in the word Lukali but the interpreter only tells the doctor, "He is coughing" the same happens in the next exchange when the patient uses the intensifier "Sana" meaning "too much". In a medical consultation, the phrases coughing and coughing a

lot have different intensity which can lead to differing diagnosis. A normal cough can be sufficiently described as a cough, but when the intensifier a lot or too much is used in the description the only plausible inference can lead to serious ailments such us Tuberclosis, whooping cough or COVID-19. It can be concluded that the interpreter seeing the condition of the patient can tell that the patient is coughing in the average sense of the word and that if the patient had excessive fever it could be showing physically in convulsions or teary eyes. In addition to this, the interpreter who is a nurse knows the implication of the use of intensifiers in the expression does not want to mislead the doctor so she gives the required interpretation. Although this may seem like a litote: understating the patient's condition, it achieves the goal of medical interpretation which is to pass to the doctor the information that is sufficient for a precise diagnosis. Altarabin (2015) observeed that leaving any information uninterpreted in the TL leads to meaning loss of the SL message. Altarabin (2015) therefore recommends that interpreters should avoid unnecessary ommision of SL words which are purposefully used to convey a certain meaning in a text by the speaker. This study suggests that reduction be used very sparingly in medical interpretation because in this type of discourse every word counts. The word that is left out might be describing a vital symptom that affects the diagnosis.

4.4.4 Shifts

Shifts are utilized to help get the information and meanings from the speaker across to the audience in a better way. From this perspective, shifts in interpretation should not be categorized simply as "deviation" or "interpretation error" (Wang, 2009). The primary motivation for interpreters to adopt the strategy mentioned above is their pursuit for the optimization of the communication effect. Interpreters make alterations in the structure and vocabulary of the source text in order to help the audience

understand the speaker clearly and accurately. Interpreters aim at maximizing equivalence, ensuring they deliver the greatest possible Equivalence in the process. The interpreter in a medical consultation has to use all the available resources to ensure the doctor and the patient get sufficient meaning out of the interpretation.

59

SP: Kuchuna busa kuri ne kwikha busa kurikuri kutila busa paka mumukongo muno.
/kutʃuna βusa kuri ne kwixa βusa kurikuri kutila βusa paka mumukəŋgɵ munɵ/
(It just pains like this as it goes down.)
I: Too much sweating and severe headache that attacks even the back.

In this extract, the patient is describing a severe headache that is associated with COVID -19. He describes the pain that emanates from the head and goes done to the back. The description that the patient gives, paints a picture of something flowing (kwikha) like a liquid. The patient uses an expression that is commonly used by the bukusu people to describe this kind of pain. The interpreter aware of the meaning that a non-native may decode from the use of the word 'flow' alters the structure of the sentence in his interpretation leaves out some words and replaces others. The patient says, "it just pains like this just flowing like this holding even in this back," the interpreter on the other hand interprets as follows, "Too much sweating and severe headache that attacks even the back" thus altering the meaning of the utterance.

60

D*:* How old is Owen?

I: Owen ali ne kimiaka kinga?

/ɵwen ali ne kimiaka kiŋga/

(Owen has how many years?)

SP: Three and a half, this is your firstborn baby?

I: Wakwanza nie owoo?

/wakwanza nie ɵwɵɵ/ (The first one is yours?)

In this second example, the interpreter uses the shift technique to interpret the first utterance and succeeds in transferring the intended meaning to the TL audience. The structure of questions in English is quite different from the structure of a question in Lubukusu. Notice that the question that the doctor asks in the extract above ends with the name 'Owen' whereas the interpreter's question in Lubukusu begins with the name 'Owen'. We can therefore rightfully conclude that for the interpreter to achieve the required level of equivalence in interpreting questions he or she must apply the shift technique. The question, 'How old is Owen?' does not have the word 'years'. But this question in Lubukusu cannot be suffiently posed without using the word 'years' such that the question, 'How old are you' will be interpreted as, 'Oli ne kimiaka kinga? (You have how many years.) In the same extract, we experience a scenario where the same interpreter does not apply the shift technique in interpreting the English interrogative, 'this is your firstborn baby?' and ends up losing the meaning. 'Wakwanza nie owoo?' (The first one is yours?) Meaning there are a number of children lined up and the doctor is asking if the first one on the queue is the one belonging to the patient. As discussed in section 4.3.1 on linguistic constraints, the patient looked around her, meaning she had been misled by the interpretation until the question was repeated. Shifts are therefore very vital techniques when interpreting between two languages with different syntactic properties like the case of English and Lubukusu. Shifts as interpretation strategies are the most suitable devices in dealing with the interpretation constraints that emerge from the differing syntactic properties between English and Lubukusu.

4.4.5 Borrowing

Situations where there is no equivalent term in the target text force interpreters to use terminologies that are foreign in interpretation into the target language. This study revealed that interpreters in a medical setting resort to this interpretation strategy whenever they come across scientific terms that are not in lubukusu. Most interpreters used words from English and Swahili which had been adapted to the phonology and morphology of Lubukusu in a process referred to as nativization**. Nativization** is the process of adapting a loan word to the phonetic and morphological structure of the native language (Anderson, 1985). Nativization is the process of altering the phonetic and morphological properties of borrowed words by conforming them to the properties of the borrowing language. Masika (2017) observed that many lexical items in Lubukusu are borrowed from other languages mainly English and Swahili and adapted to the the phonology and morphology of Lubukusu in order to be used as part of Lubukusu vocabulary. The process of changing the Swahili or English words phonectically and morphologically into the linguistic demands of Lubukusu is called nativization. It means changing the words borrowed from English and Swahili into the morphology and phonology of Lubukusu while retaining the meaning of the words in order to be used as lexical items of Lubukusu. This strategy of interpretation is intensively used in the data collected by the researcher. The following extract illustrates this concept.

61

> D: Ok thank you from my assessment, you have all the cardinal signs of COVID-19 so it will be important for us to take a sample for testing COVID-19
>
> I: Nono khubirira mumakhua niko wakhalomaloma, onyala khuba nende bulwale bwa kofiti nono balikho bacha khubukula e sampo ye likhaso lwoo bache bapime lakini khumuda kukhwanjila sai

khuendelea paka nga kamachibu ne karura sakhocha khukhwikhala ne babandu ta olaba wong'ene

/nɵnɵ xuβirira mumaxua nikɵ waxalɵmalɵma, ɵŋala xuβa nende βulwale βwa kɵfiti nɵnɵ βalixɵ βatʃa xuβukula e sampɵ je lixasɵ lwɵ βatʃe βapime lakini xumuda kuxwanɟila sai xuendelea paka ŋga kamatʃiβu ne karura saxotʃa xuxwixala ne βaβandʊ ʃta ɵlaβa wɵŋene/

(Now from what you have said, you could be having the disease of COVID now they are going to take a sample of phlegm to test but during the time beginning from now until the results come out, you will not stay wil people you will be alone.)

In example 61 above, the words: kofiti, esampo, bapime and kamachibu are not original words of Lubukusu. These are words borrowed from English and Swahili and nativized into Lubukusu. Kofiti "COVID" and esampo "a sample" are borrowed from English while bapime and kamachibu are borrowed from Swahili words (kupima) meaning 'to test' and (majibu) 'results' respectfully. These are loan words from English and Swahili which have acquired the phonological and morphological features of Lubukusu language. A similar scenario is observed in the following example;

62

SP: Takitari ndwala, khukhwinyala buchuni

/takitari ndwala, xuxwiŋala βutʃuni/

(doctor, I am sick, when I urinate I feel pain

I: Cha mulapu khuli khwekesia nieli

/tʃa mulapu xuli xwekesia nieli/

D: Now your results are out. There are some bacteria and viruses in your body.

I: Bali kamachibu karurile, kokesia kali kumubili kwoo kulimo nende bibindu bibi bikhenyekhana tawe.

/βali kamatʃĩβu karurile, kɵkesia kali kumuβili kɵɵ kulimɵ nende βiβindu βiβi βixeŋexana tawe/

(That the results are out. They show that your body has bad things that are not needed.)

D: I will give you medication but make sure your partner is treated.

I: Yee nende ehali yoo ye buwale bwa maniafu

/jee nende ehali jɵɵ je βuwale βwa maniafu/

In example 60 above, the words: Takitare, mulapu, kakachibu and ehali are loan words from English and Swahili. Lubukusu speakers have nativized the English words 'doctor and lab the short form of laboratory' to takitare and mulapu. Swahili words majibu "results" and hali "status" have undergone the same process of nativisation and are now used in lubukusu with the same meaning**.**

63

D: Now what we can do is to refer you to the labolatory.

I: Bali nisio khabakhola khebakhuruma mulapu bacheke kamenyi koo.

/βali nisiɵ xaβaxɵla xeβaxuruma mulapu βatʃeke kameɲi kɵɵ/

(That that is why they are sending you to the lab to check your urine)

Borrowing as an interpretation strategy has been extensively used in the conversation above. Again, we notice the use of the words: mulapu, "to the Lab" and kamachibu "results" bacheke "to check". These words have been assigned Lubukusu prefixes {mu}, {ka} and {ba} to make them sound like words of Lubukusu. The voiced consonant /b/ at the end of the word 'lab' has as well been dropped and replaced with the nearest voiceless consonant /p/ in order for the word to sound like a word in Lubukusu. Finally, example 64 presents more examples of the borrowing strategy in interpretation.

64

D: You will go to the pharmacy to take the medicine then after medication you will go to the police to be given a P3 form to bring for me to fill.

I: Olacha sia famasi obukule kamalesi mala newakhamala busilikho oche paka sia polisi bakhue epithiri fomu wiche nenayo anano taktari bakhwichusilie, alafu nio baime omundu oyo bamutile.

/ɵlatʃa sia famasi ɵβukule kamalesi mala newaxamala βusilixɵ ɵtʃe paka sia pɵlisi βaxue epithiri fomu nenajɵ ananɵ taktari βaxitʃusilie, alafu niɵ βaime ɵmundu ɵjɵ βamutile/

(You will go to the pharmacy to take medicine then after the treatment go to the police to be given a P3 form you come with it here for the doctor to fill for you so that tey can look for that person and arrest him.)

The data reveals an extensive use of borrowing as an interpretation tool. Basing on the four examples, it can be deduced that whenever interpreters are faced with a scientific word that does not have an equivalent form in Lubukusu they resort to borrowing in order to pass the message across to the target audience. The words in bold in the excerpts above are borrowed mainly from English and Swahili and transformed into the phonology and morphology of lubukusu.

Kofiti, esampo, takitare, mulapu, epithiri, fomu, polisi, and famasi are some of the words borrowed from English. English has both open and closed syllables Lubukusu on the contrary has only open syllables. Phonologically we observe that vowels are added at the end of every syllable in English words in order to make the sound as words of Lubukusu. Phonologically Lubukusu does not make use of voiced consonants such as /d/ and /b/. Whenever voiced consonants appear in words like doctor and laboratory, these are replaced with the voiceless /t/ and /p/ such that doctor becomes takitare and laboratory becomes mulapu. A part from the noted phonological changes, prefixes are added to some words where articles and prepositions are required to adapt to the morphology of Lubukusu. A sample becomes esampo, a P3 becomes epithiri and lab becomes mulapu “in the lab”. Table 4.4 below shows the adaptation of English words into the phonology of Lubukusu.

Table 4.4 Phonological Adaptation of Borrowed Lexical Items

English SL	Borrowed TL	Original phonological features in the SL	New phononological features in the TL
COVID	**Kofiti**	/v/ and /d/	/f/ and /t/
Sample	**Esampo**	Coda /l/ Present	Coda /l/ dropped
Doctor	**Taktari**	/d/ and /	/t/ and /i/
Laboratory (lab)	**Mulapu**	/b/	/p/
P3	**epithiri**	Ccv syllable Three Voiced /ð/	Cv /θi) plus a new syllable **ri** Voiceless /θ/
Form	**fomu,**	Closed syllable	Open syllable (vowel /u/ added)

Table 4.4 above gives a summary of the phonological adaptation of words borrowed from English and Swahili into Lubukusu. The next table 4.5 displays the morphological operations that the English or Kiswahili words undergo in order to be used in Lubukusu.

Table 4.5 Morphological Adaptation of Borrowed Lexical Items

Source Language **(English)**	Source Language **(Kiswahili)**	Target Language **(Lubukusu)**	Morphological features added in the TL	The Gloss in English
	Hali	ehali	The prefix {e} added as a marker for number in the indefinite article 'a'	A situation
P3		epithiri	The prefix {e} added as a marker for number in the indefinite article 'a'	A 'P' three
Sample		esampo	The prefix {e} added as a marker for number in the indefinite article 'a'	A sample
	Majibu	kamachibu	The prefix {ka} as a marker for plural.	The results
	Kupima	khupima	The prefix {khu} added as the infinitive 'to'	To test
Laboratory Lab		mulapu	The prefix {mu} added as the preposition 'in'	In the lab
Pharmacy		mufamasi	The prefix {mu} added as the preposition 'in'	In the pharmacy

On the table above, the words in bold are examples of words that were borrowed by interpreters as they employed borrowing as a strategy for interpreting medical discourse. The words were adapted to the morphology of of Lubukusu by additing a number of prefixes to convey additional meaning to the meaning of the words when used singly. In Lubukusu, nouns do not usually operate on their own as single words, rather, they are always accompanied by mandatory prefixes representing articles, prepositions, tenses and aspects. In the examples on the table above, the prefixes {e}, {mu}, {ka} and {khu} have been attached on words to cater for number (to show when the word is in singular or plural), and to represent prepositions as indicated. For a word from another language to be borrowed in Lubukusu, such a word has to undergo both phonological and morphological transformations until it looks like the rest of the words in Lubukusu. Borrowing therefore is a solution to dealing with hard scientific terminologies that have no equivalence in Lubukusu. We now turn to another interpretation strategy which is explicitation.

4.4.6 Explicitation

Explicitation is revealing more information in the target utterance than was given in the source language utterance. Heltai (2005) defines explcitation as a process of meaning processability rather than linguistic explicitness. It is a strategy of changing meaning level occasioned by the presence of more linguistic forms that make a text more explicit, less ambiquous and provides easier comprehension. In this strategy of interpretation, the interpreter introduces information from the source text that is implicit from the situation or context into the TT utterance not just as a mere addition but with the aim of making clearer for the audience. Most interpreters with medical experience utilized this strategy resulting into the most successful interpretations

recorded in our data. The following extracts are example of elaborating additions and the sections in old indicate the added information.

65

D: Ok what's your complain, *what brings you here today?*

I: Sina sikhurerire mwosibito luno?

/sina sixurerire mwɵsiβitɵ lunɵ/?

(What brought you to the hospital today.)

The interpreter in this episode introduces the word 'hospital' in the TL utterance which is not in the SL utterance. The introduction of the word hospital brings the patient to the context of the conversation and so she gives a detailed account of her situation. Earlier in the same conversation the patient had mentioned that he had been going to other hospitals. If the interpreter had used the adverb 'here' the patient could have thought she is being questioned on the change of facility instead of the reason she has come to seek medical attention.

66

D: When you get infected with a UTI, there are chances you can be infected with the H.I.V Virus.

I: Taktare alikhoaloma ali nonyola bulwale bwa chingonelo buno oli raisi sana khunyola bulwale bwa maniafu. Ni sio sikila nakhakhupima biosi.

/taktare alixɵalɵma ali nɵɲɵla βulwale βwa tʃĩŋɵnelɵ βunɵ ɵli raisi sana xuŋɵla βulwale βwa maniafu ni siɵ sikila naxaxupima βiɵsi/

(The doctor is saying that when you get the bed related sicknesses it is very easy to to get H.I.V. That si why we are testing both.)

In the above conversation, the doctor gives an explanation as to why the patient should be tested for H.I.V without adding the phrase "that is why we will test both" which translates into "Nisio sikila nakhakhupima biosi." A phrase added by the interpreter to

make explicit the doctor's explanation in argreement with Becher (2011:18) who defined explicitation as the verbalization of information that cannot be understood if not stated clearly. Explicitation is not a mere addition in a discourse, rather, it is making clear whatever information that is implied in unuttered words by vocalizing it. Taboho & Tankison (2023) posit that expicitation is an explanation in the target text that makes the message clearer than it was in the source text as it tries to unfold what is hidden in the source text. By use of explicitation here, the patient is convinced to be tested for H.I.V.

4.4.7 Addition

Addition is a strategy in interpretation where an interpreter gives more information than what was in the original source language utterance. The interpreter may use more words than those used in the source language utterance or use hyponymns to elongate the information that the speaker in the Source language uttered. AIn a medical consultation, the interpreter at times may observe that the information given by the patient may not suffice for the making of precise diagnosis so to make it clearer; the interpreter may give an after thought component.

67

D: Ok, so your intention of coming to hospital is just to get medication or you have other plans after being treated?

I: Nono khukhwicha khwoo mwosibito wenya bakhusilikhe busa nochengo namwe olikho nende e plani ekindi nende omundu wakhupa?

/nɵnɵ xuxwitʃa xwɵɵ mwɵsiβitɵ weŋa βaxusilixe βusa nɵtʃeŋgɵ namwe ɵlixɵ nende e plani ekindi nende ɵmundu waxupa/?

(Now your coming to hospital, do you just want to be treated then you go home or you have another plan with the person who beat you.)

SP: Nachile mupolisi namustaka bambelesia OB namba

/natʃile mupɵlisi namustaka βamβelesia ob namba/

(I came to the police and reported him and they gave me OB number.)

I: She went to the police station then she was given an OB number so she is planning to take legal action.

The doctor's utterance in English does not include the words 'then you go home' as indicated in the the interpreted utturence which has the word nochengo "then you go home". In addition to this the doctor does not mention the words 'with the assailant' as seen in the interpreted Lubukusu utterance as nende omundu wakhupa "with the assailant". The patient states simply that she went to the police to report and she was given an OB number. But the interpreter adds in the TL utterance that, she is planning to take legal action. This addition helps the doctor to make the next decision.

68

SP: Mala elarera bulomani

/mala elarera βulɵmani/

(And I twill bring a quarrel.)

I: He is saying it will bring quarrels in the home.

D: That's the only way because if we do not treat your partner the sickness will re-occur.

I: Bali eino niyo engila ndala busa nio khunyala khwakhuyeta sikila mama khwalekha khumusilikha aba mulaba naye ne akhua bulwale lundi.

/βali einɵ nijɵ eŋgila ndala βusa niɵ xuŋala xwaxujeta sikila mama xwalexa xumusilixa aβa mulaβa naje ne axua βulwale lundi/.

(That is the only way that we can help you because if we do not treat mama if we don't treat her then you be with her she will infect you again.)

D: So take all the drugs as prescribed and come back again after one week for retesting

I: Bukula kamalesi kano *oche omile* bulai nga bakhuelesilie mala lichuma lilala ne liakhawa wiche bakhu chekekho lundi babone kabali waonile.

/βukula kamalesi kanɵ ɵtʃe ɵmile βulai ŋa βaxuelesie mala litʃuma lilala ne liaxawa witʃe βaxu tʃekexɵ lundi βaβɵne kaβali waɵnile/

(Take this medicine go and take well as you have been instructed and after one week, come to be checked again to see if you are well.)

From the coversation above, all the words in bold type are additions made by the interpreter in order to clarify information. In the first case the SP says the report would bring quarrels, but the interpretater adds the words 'in the home' which in this case are redundant. The doctor tells the patient that that is 'the only way' but the interpreter adds the words nio khunyala khwakhuyeta this addition aids in achieving the intended effect. The patient was unwilling to divulge the information about his sickness to the wife so this addition helps to convince him that it is necessary for his wife to be treated also. Still in that struggle to convince the patient to bring the spouse for treatment, the interpreter adds aba mulaba naye ne akhua bulwale lundi "if you will be with her without her being treated, she will give you the sickness again". This addition yields the desired results because the patient eventually accepts to tell the spouse to come for treatment as well. The doctor's final instructions to the patient are to 'take' the medicine meaning 'swallow' but the interpreter adds by telling the patient Bukula kamalesi kano "take this medicine" bukula in Lubukusu captures only one meaning of the word 'take' which is to change possession from someone else to yourself. The interpreter had to add oche omile "and swallow" to clarify the ambiguity.

Finally, the doctor instructs the patient to come for a re-test after taking the medicine but the interpreter adds, babone kabali waonile "so that they can check whether you are healed". This addition was important because the patient has shown unwillingness to let the wife know he was sick, the interpreter had doubts if the patient would come back for the re- test and so she decides to add this information to persuade him to come back.

69

D: A small prick

I: Baunakho busa atiti babukule kamafuki bapiime

/βaunaxɵ βusa atiti βaβukule kamafuki βapiime/

(They are pricking you a little to take blood for testing.)

D: You are going to wait from outside

I: olacha khulindila kamachibu anje

/ɵlatʃa xulindila kamatʃĩβu anɟe/

(You will go and wait from outside.)

In this conversation, the interpreter uses addition strategy in interpretation. The doctor prepares the patient for the needle by saying 'a small prick' the interpreter adds babukule kamafuki bapiime which means "they want to take blood to test". The patient is instructed to go and wait from outside. Notice that the doctor does not tell the patient what to wait for but the interpreter adds the word kamachibu "results". The interpreter succeeds in using the strategy of addition to link the doctor to the patient and maximize on equivalence.

70

D: So, you will go to the pharmarcy to take the medicine

I: Bali olukhucha *mufamasi* obukule kamalesi. No bonakho eshida yosi yosi ne wicha

/βali ɵluxutʃa mufamasi ɵβukule kamalesi nɵ βɵnaxɵ eshida jɵsi jɵsi ne witʃa/

(That you will go to the pharmacy to take medicine, if you see any problem you come.)

In this final example, the interpreter adds the words that are in bold. The doctor instructs the patient to go to the pharmacy to take the medicine but the interpreter adds

no bonakho eshida yosi yosi ne wicha (If you experience any problem you come back). This addition is very important and the interpreter being a medical officer herself knew it was necessary to give that instruction to a patient with that kind of ailment.

One item on the interpreter's questionnaire asked interpreters to tick the interpretation strategies they use commonly when interpreting a medical consultation. These were presented in the questionnaires by simplified explanations that define the interpretation strategy. For example, the interpreters were asked if the use explanations The interpreters were asked to tick all the strategies they use in interpretation as captured in the given phrases.The Table 4.6 below shows the results.

Table 4.6 Ranking Interpretation Strategies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1. Explicitation	8	27.6	27.6	27.6
	2. Borrowing	6	20.7	20.7	48.3
	3. Addition	5	17.2	17.2	65.5
	4. Shifts	4	13.8	13.8	79.3
	5. Filtering	3	10.3	10.3	89.7
	6. Reduction	2	6.9	6.9	96.6
	7.Generalization	1	3.4	3.4	100.0
	Total	29	100.0	100.0	

Explicitation as an interpretation strategy was selected by the highest number of interpreters. This shows that it ranks number one on the list of strategies. Most interpreters in this study explained issues to the doctor and to the patient in order to make an utterance clearer. Explicitation had the highest frequency of eight followed by borrowing which has a frequency of six and addition has a frequency of five. The least common strategy of interpretation preferred by interpreters is generalization. Generalization was selected by only one interpreter and that ranks it at number eight with a frequency of one. This is the reason why this study does not recommend the use of generalization as an interpretation strategy in medical interpretation. When

interpreting from one language into another, interpreters have many means they use to overcome the challenges they encounter in the process of interpreting.

Tarone (1981: 285) defines communication strategies as "a speaker's attempt to communicate meaningful content in the face of some apparent deficiencies." Tarone (ibid) acknowledges the fact that all interpretation events have challenges and that the various ways that interpreters use to pass across a meaningful message to the target audience is what we call strategies. Ellis (1984) suggested that the notion of communication strategy could be a useful one for evaluating communicative performance. We therefore make use of this notion in order to describe the quality of interpretation in the data collected.

Interpretation challenges were notably present in the data that was collected. The linguistic and cultural differences between English and Lubukusu caused a number of constraints in interpretation. In order to overcome the constraints and achieve a sufficient level of equivalence, interpreters employed special mechanisms in the process of interpreting the medical consultations between non-native doctors and patients who are proficient only in Lubukusu. The different mechanisms that interpreters used to deal with challenges of interpretation and maximize communication are referred here as Interpretation Strategies. An interpreting strategy is a method that is used deliberately to prevent or solve potential problems in interpreting or to enhance interpreting performance (Bartłomiejczyk, 2006). Data in this study reveals that not all interpretation strategies are applicable in medical interpretation. The language of medicine is characterized by scientific jargon that requires special strategies to interpret. The next section presents and discusses the data on objective four of the study which was to establish whether there is Loss or Gain of meaning in the interpretation of English Lubukusu medical discourse.

4.5. Loss and Gain of Meaning

The fourth objective of this study was to establish whether there is loss or gain of meaning in the interpretation of English-Lubukusu Medical discourse. The data on this objective is presented in this section. First is a discussion on meaning loss then followed by a discussion on gain of meaning.

4.5.1 Loss of Meaning

Loss is the disappearance of certain features in the target language utterance which are present in the source language speech leading to reduction of equivalence. When a word, a prase or sentence fails to have the same meaning or effectiveness when it is interpreted into another language then meaning has been lost. If for example one interprets a joke from the SL (Lubukusu) into the TL (English) and the TL audience does not get amused, something must have gotten lost in interpretation because the joke is no longer funny in English. Shariati and Shariati (2014) note that, a successful translation is one that conveys the explicit and implicit meaning of the source language, into the target language as fully and accurately as possible. It can be inferred that failure of the interpreted messages to accurately serve the intended purpose in the TL amounts to loss of meaning

In this study loss also refers to the inability of the interpreter to relay the message the ST utterance meant for the TT audience. Medical interpretation is a very important event as the correct diagnosis and treatment relies on it. In the event that the interpreter fails to relay the correct information to the doctor or to the patient then loss of meaning has occurred. This study investigated interpretation between a non-native doctor and a Bukusu patient who is proficient only in Lubukusu. Failure by interpreters to relay the correct information to and from each of the parties was noted. The conversation in example 69 below is one such incident.

71

SP: Wabone ekhololа mala lundi nekhololа ndio yani muchimbafu muno yani kamachukhuru kano mbulila busa bubibusana buchuna sana, lundi kimiuya kiola abundu kienya khukhwima bise bilala.

/waβɵne exɵlɵla mala lundi nexɵlɵla ndiɵ jani mutʃimβafu munɵ jani kamatʃuxu kanɵ mβulila βusa βuβiβusana βutʃuna sana, lundi kimiuja kiɵla aβundu kieɲa xuxwima βise βilala/.

(You see I cough and when I cough like that, infact here in the ribcage, I mean these lungs I feel just very bad, it pains a lot and the breathe reaches a point it wants to stop some times.)

I: He has continous coughing with pains in the lower abdomen.

In this conversation the patient complains of chest pains emanating from the ribcage "Muchimbafu" in Lubukusu. But the message that the interpreter relays to the doctor is very different as he says that the patient is having pains in the "lower abdomen". There is a conspicuous loss in this interpretation episode. The diagnosis for chest pain is very distinct from the diagnosis that can be made from a complaint of pain in the 'lower abdominal'. Pains in the lower abdomen are usually linked to problems with the reproductive organs whereas chest pains are linked to vital organs in the ribcage such as the heart or the lungs. Given that these two sections of the human anatomy are far from each other, such misinterpretation can lead to serious misdiagnosis that might gravely put the patient's life in danger. Loss of meaning in a medical consultation should be averted by all means as this can lead to fatal effects to the patient and put the doctor's practice in jeopardy.

Interpretation loss may also refer to incomplete replication of the ST in TT (Dizdar, 2014). When an interpreter fails to render the cultural and linguistic features of the ST in the TT, loss of meaning occurs. Loss can also be related to the failure of the interpreter to convey an element of meaning such as expressiveness. If the interpreter is not competent in the target language, some words and phrases might be deleted and

loss of meaning incurred. The other cause of loss is due to the linguistic and extra linguistic differences between the source language and target language. These linguistic differences hold back the interpretation process because each language has its ways of expressing the same concepts in different systems.

As-Safi (2006) classifies loss as either *Inevitable* or *Avertable* as observed by (Tiwiyanti, L. & Retnomurti, A. B. (2016). Inevitable loss is the inability of the interpreter to attain the required level of equivalence in the TL due to constraints that cannot be avoided. Inevitable loss occurs due to circumstances that are beyond the control of the interpreter while avertable loss occurs as a result of the limitations attributed to the interpreter.

4.5.1.1 Inevitable Loss

In our case, loss incurred due to the linguistic differences between English and Lubukusu amounts to inevitable loss. Inevitable loss is caused by the divergent linguistic and cultural systems of the two languages. An example of such loss is seen in the following conversation.

72

I: Oli buchafu burura emwalo chana?

/Ɵli βutʃafu βurura emwalɵ tʃana/?

SP: Buchafu burura oli kamaira nekhenyala ta bulinga nenja khukhwinyala kibindu kirura emubili eyi kimisiro mala oli miwanga.

/βutʃafu βurura ɵli kamaira nexeɲala ta βuliŋga nenɟa xuxwiɲala kiβindu kirura emuβili eji kimisirɵ mala ɵli miwaŋga/.

(Some dirt comes out like pus before I urinate everytime I go to urinate some things come out from the body thick and whitish.)

I: Some thick whitish discharge from the body.

D: Which part of the body?

I: Lubeka sina?

/luβuka sina/?

(Which part?)

SP: Nio ninyalilei

/niɵ niɲalilei/

(Where I urinate from.)

I: The private part.

The cultural and semantic differences between Lubukusu and English engender the inevitable loss in the dialogue above. The bukusu people have rules governing the use of certan words that revolve around the private parts of the body. Real names of the reproductive organs and anything revolving around them can only be used among agemates and those in intimate relationships. The patient above uses the word "emubili" to mean the penis. This is the term used by all to name this part of the body. It is not common for a patient to use the real name of the organ when talking to a stranger especially one to whom respect is expected. This is the reason he uses the term "kumubili" whose denotative meaning is "the body" These differences pose a challenge to the interpreter. She interprets it literally as "the body" leaving the doctor with questions as to which part of the body is releasing the discharge. Precise diagnosis requires the knowledge of the exactly part of the body that is discharging. The interpreter manoeuvres by using the generalization interpretation technique. She uses a general term "private part" which suffices for correct diagnosis.

Another incident of inevitable loss is observed in the inability of the interpreters to interpret medical terms that have no equivalence in Lubukusu (see example 69 and 70). In example 71 the lab results of the patient indicate that the patient has bacteria and viruses in the body. The interpreter is at a complete loss in his interpretation of the

words ‘bacteria’ and “virus” which have no equivalents in Lubukusu leading to inevitable loss.

73

D: Now your results are out. There are some bacteria and viruses in your body.

I: Bali kamachibu karurile, kokesia kali kumubili kwoo kulimo nende bibindu bibi bikhenyekhana tawe.

/βali kamatʃiβu karurile, kɵkesia kali kumuβili kwɵɵ kulimɵ nende βiβindu βiβi βixeŋexana tawe/.

(That the results are out, they show that your body has bad things that are not needed)

The two words, ‘bacteria’ and ‘viruses’ are interpreted as bibindu bibi (bad things). When the doctor interprets the patient’s results as having bacteria and viruses, the interpreter tells the patient that he has bad things in the body. There are very many things that when found in a human body can generally be termed as bad things. These include any foreign material in the body that cause discomfort. The use of the term bibindu bibi as an alternative for bacteria and viruses does not suffice and this leads to inevitable loss.

This study noted a number of scientific terminologies that have no equivalents in Lubukusu used by doctors. Words such as: syrup, antibiotic, laboratory, covid, paracetamol, allergy, immunity, Xray, flagil, anosmia and many others do not have equivalents in Lubukusu. In the process of struggling to interpret such words into Lubukusu the interpreter misses out a certain amount of equivalence and this is attributed to inevitable loss.

4.5.1.2 Avertable Loss

Avertable loss is attributed to the interpreter's inability to find appropriate terminology in the TL to represent those in the SL speech. *Avertable loss* is attributed to the interpreter's failure to find appropriate lexical and syntactic forms to represent those in the source language speech. Avertable loss occurs as a result of the interpreter's limited knowledge of vocabulary in both the SL and the TL. This type of loss may also occur due to reduced time lag that forces the interpreter to do a speedy cognitive interchange of linguistic material leading to miscues. In this study, this kind of loss occurred mostly whenever most scientific terminologies were used in the consultations. According to Njeru (2015), loss results from the untranslatability of some elements at linguistic or cultural levels which result in the diminishing of the expressiveness and vividness of the ST. In the following conversation already referred to as example 57 above, there is loss that is caused by the interpreter's carelessness in interpreting. The patient complains of pain in the ribcage but the interpreter tells the doctor that the patient is having lower abdominal pain.

74

SP: Wabone ekhololа mala lundi nekhololа ndio yani muchimbafu muno yani kamachukhuru kano mbulila busa bubibusana buchuna sana, lundi kimiuya kiola abundu kienya khukhwima bise bilala.

/waβɵne exɵlɵla mala lundi nexɵlɵla ndiɵ jani mutʃimβafu munɵ jani kamatʃuxu kanɵ mβulila βusa βuβiβusana βutʃuna sana lundi kimiuja kiɵla aβundu kieɲa xuxwima βise βilala/.

(You see I cough and when I cough like that, infact here in the ribcage, I mean these lungs I feel just very bad, it pains a lot and the breathe reaches a point it wants to stop some times.)

I: He has continous coughing with pains in the lower abdomen

In this conversation the interpreter misinterprets the phrase, "muchimbafu muno". This phrase should have been interpreted as '*In the ribcage'* instead, the interpreters interprets it to the doctor as Lower abdomen. The SP was enacting the role of a

COVID-19 patient he had just attended to and chest pain is one very important symptom that would have aided diagnosis. This is avertable loss because looking at the interpreter's level of communication both in English and Lubukusu one notices that he knows a wide range of vocabulary in the two languages and so he cannot fail to know the meaning of the Bukusu word chimbafu (ribs) nor the English word lower abdomen so as to interchange the two. Loss in the above conversation also comes as a result of the interpreter deliberately ellipting very vital information that carries other two key symptoms in the diagnosis of COVID-19. All the words in Itallics in the conversation have not been interpreted. These words, *yani kamachukhuru kano mbulila busa bubibusana buchuna sana, lundi kimiuya kiola abundu kienya khukhwima bise bilala,* should have been interpreted as, 'Infact these lungs, I feel so bad they pain a lot, and it reaches a point when I find it difficulty to breathe, my breath stops at times". The vital symptoms that are not interpreted are: pain in the lungs, difficulties in breathing and missing of breath. These are very vital symptoms necessary for the diagnosis of COVID-19 failure to interpret these symptoms can lead to misdiagnosis and subsequently giving the wrong treatment. This loss is attributed to the interpreter's negligence of his duty of bridging the gap between the non-native doctor and a Bukusu patient. The kind of loss that happens in the example below is attributed to the inefficiency of the interpreter. The doctor instructs the patient to take the medicine for five days but the interpreter tells the patient to take the medicine for three days.

75

D: If there is no improvement you come back

I: Nokhanyolakho butofauti tawe olikhuyikha bakhusilikhe

/nɵxaɲɵlaxɵ βutofauti tawe ɵlixujixa βaxusilixe/

(If you don't get well you will come back for treatment.)

D: She will take two times three for five days,

I: Olamila kabili chisafari chitaru khusuku: asubui sasapa nende ekoloba khusuku chitaru

/Θlamila kaβili tʃisafaritʃitaru xusuku: asuβui sasaβa nende ekɵlɵβa xusuku tʃîtaru/

(You will take two three times a day, in the morning, at one and in the evening for three days.)

This second excerpt is another example of loss that occurs due the shortcomings of the interpreter. The doctor in this conversation is instructing the patient on how to take the medication. He tells the patient to take the medicine for five days, but the interpreter misinterprets it as, "chisuku chitaru" which means three days. Given that the patient relies completely on the information that the interpreter gives, she will for sure take the medicine for three days and stop the treatment midway. The danger is in the fact that the patient will not get healed and a worse scenario is where some antibiotics may never work for such patients if not taken as a full dose. Loss of meaning in medical interpretation can be so costly. There should be no room for loss when interpreting in a medical situation because this leads to mis diagnosis and giving wrong treatment which puts the patient's life at risk and the doctor becomes vulnerable to malpractice litigation (Debra & Judith 1989). The kind of loss incurred in the next extract in example 74 is an illustration of how loss in medical interpretation can put the patient's life at risk and jeopardice the doctor's profession. The glosses in brackets are provided by the researcher for easy readability.

76

D: Any episodes of feats? Any episode of feats? Is the baby feating?

I: Omwana aliasa bulai namwe? (Is the baby feeding/eating well?

/Θmwana aliasa βulai namwe/?

SP: Khulia alia sa bulai lakini… (Eating he is just feeding well but?

/xulia alia sa βulai lakini/

I: He is just feeding well but…

D: Is the baby convulsing? Any episodes of convulsions?

I: Omwana kesindukha sindukhakho? (Does the baby get startled most of the time?)

/Ɵmwata kesinduxa sinduxaxɵ/

SP: Yee (yes)

/jee/ (yes)

I: He has convulsions.

D: So mummy let me see the baby first.

In the conversation above the interpreter misses out in interpretation again. First, the doctor uses the word feating which the interpreter interprets as 'feeding'. When the interpreter gives the patients response that the baby is feeding well, the doctor realizes that he has not been understood and repeats the question using a synonym. This time round he uses the word 'convulsions'. Unfortunately, the interpreter seems not to know the meaning of the word and misinterprets it as 'getting startled' and the patient says yes because it is common for babies to get startled in their dreams especially when they are unwell. A child who is sick to a point of getting convulsions is in a serious state that needs urgent attention. That explains the doctor's reaction at the end of the extract above, he quickly asks the SP to give him the child. The worse scenario would be for the doctor to give the child any treatment meant to stop convulstions when he is not convulsing. The end results will be what Debra & Judith (1989) describe in an earlier part of this section. One of the items on the doctor's questionnaire asked the doctors whether there are times when they feel the interpreter has not relayed the exact information they intended for the patient or the patient intended for them. This question was intended to add wait to the fact that if the process of interpreting in a medical

setting is not carefully undertaken then instances of misinterpretation may occur. The table 4.7 below presents the responses of the doctors on meaning loss.

Table 4.7 Loss of Meaning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	N	1	7.7	8.3	8.3
	S	7	53.8	58.3	66.7
	M	1	7.7	8.3	75.0
	R	3	23.1	25.0	100.0
	Total	12	92.3	100.0	
Missing	System	0	0		
Total		12	100.0		

N on this table stands for Never, S for Sometimes, M for Most of the time and R for Rarely. The option 'Sometimes' has a frequency of seven out of twelve followed by rarely with three and the rest one each. Sometimes, means it happens occasionally. For seven doctors to choose this option it means that instances of misinterpretation do actually occur. The option rarely, was placed on the question deliberately to capture any respondend who may have wanted to say it happens but in a way that appreciates the effort of the interpreter. Three doctors felt that miscues in medical interpretation rarely occur, which essentially states the same fact in a mild way. The bottom line here is the fact that there are instances of misinterpretation in medical interpretation. These should be minimized as much as possible due to the delicateness of the medical consultations.

4.5.2 Gain of Meaning

Gain is a concept that focuses on the enrichment or clarification of the source language text (Bassnett, 2006). Gain in interpretation refers to the enrichment or clarification of the source language speech to make the target language utterance relevant. Gain is possible in medical interpretation when a medical officer translates for another. Such

interpreters understand the patients very easily and are able to relay more enriched information to the TT audience than was given in the ST utterance. Relative expressional abilities, creativity and medical knowledge enable interpreters to create something new. Interpreters are always in the situation where they are subjected to the pressure to negotiate the differences in meaning that languages entail. In medical interpretation, the interpreter's expressional ability coupled up with medical experience makes gain of meaning possible. Examine the following conversation.

77

SP: Ese taktari chisuku chibili chino neninyala mbulila buchuni.

/ese taktari tʃisuku tʃiβili tʃinɵ neniɲala mβulila βutʃuni/.

(Me doctor the past two days when I urinate, I feel pain.)

I: Pain on micturation

D: For how long?

I: Chisuku…. Two days.

/tʃisuku/....Two days.

D: For two days?

The use of the term 'micturation' delivers a more precise description than what was given in the Lubukusu utterance. There are high chances that even if the patient had been proficient in English he could not have used such a word to describe his situation. The interpreter's knowledge of medical jargon makes it possible for the interpretation to gain meaning. In the same consultation extracted below, the interpreter uses the term pubic symphysis which is gain as it is easier for the doctor to understand.

78

I: There is inchiness.

D: Where?

I: Wae, wiyakala wae?

/wae, wijakala wae/?

(Where do you feel the itchiness?)

SP: Khumwena.

/xumwena/.

I: Just at the pubic symphysis

Our data revealed that gain did not only appear in the interpretation into English but also in the interpretation into Lubukusu. In the following two examples, the interpreter uses euphemism to interpret some sensitive terminologies among the Bukusu people and this helps the SP to understand and freely talk about a topic that may have caused embarrassment if the exact words were used. Look at the two extracts below.

79

I: Yesterday the husband insisted that they wear a condom but she declined.

D: Was there unprotected sex yesterday?

I: Nono mwakholile busa pila ekondomu likoloba?

/nənə mwaxənile βusa pila ekəndəmu likələβa/?

(Now did you just do it without a condom yesterday?)

SP: Ta senamuwele ta, namureba ndi kimiaka kino kiosi sai nio olome oli ekondomu? Kakhaya nesesi ndoba. Senamuwele ta. Sekhwakholilekho ta papa.

/ta senamuwele ta, namureβa ndi kimiaka kinə kiəsi sai niə ələme əli ekəndəmu? kaxaja nesesi ndəβa senamuwele ta. sexwaxəlilexə ta papa/.

(I didn't give him, I asked him for all these years it is today that you are asking me to use a condom? He insisted and I also rrefused, I didn't give him. We did not do it father.)

I: She did not have any intercourse with the husband.

There is gain in example 86 above achieved by the use of the term mwakholile (did you do) instead of the use of the actual equivalence of the word 'unprotected sex' in Lubukusu. Medical officers by the nature of their job are trained to call every part of the human body by its name. This is because they frequently encounter, see and attend

to patients with problems involving private body parts so, calling such parts of the body by their names is a normal thing. Lubukusu on the other hand considers names of private body organs as embarrassing and should not be mentioned to every other person. Aware of the nature of the different backgrounds of the interlocutors, the interpreter balances the two worlds and provides a smooth flow of information from one party to the other without offending any of them, this amount to gain in interpretation. The next example extracted from the same medical consultation elucidates gain in interpreting culturally sensitive words.

80

I: Bali sikila Chakopo kaba ne kamaira mumenyi, nekenyala kamaira kabamo…
/βali sikila tʃakɵpɵ kaβa ne kamaira mumeɲi, nekeɲala kamaira kaβamɵ/

(That because Jacob had pus in his urine when he urinates there was pus/)

D: And you had intercourse with him

I: Mala mwaba nenaye

/mala mwaβa nenaje/

(And you were with him)

D**:** We have decided that you should also be treated.

Instead of using the word for 'intercourse' in Lubukusu, the interpreter uses the phrase mwaba naye, (you were with him) thus taking care of the cultural demands of Lubukusu but ensuring that the message reaches the two parties in a form that is not offensive.

Wadensjö (1998) emphasizing the coordinating aspect of interpreters opines that by virtue of their unique middle position and immediate access to "almost everything available to ears and eyes," interpreters have the hard task of "establishing, promoting and controlling connections between primary parties in conversation." This task also

includes managing the emotional character of interlocutors' talk by making the cues conveying it more or less accessible to co-participants, with the effect of either encouraging or inhibiting participants' mutual attention.

Gain in meaning is achieved as a result of the interpreters' role of promoting and managing the emotional wellbeing of the interlocutors. Gain may occur as the interpreter works to deliver the information in a package that is friendlier and more acceptable to the TT audience than it was packaged in the ST utterances. In the first dialogue above the doctor asks if the patient had had unprotected sex, the term sex is one of those terms that are guarded in Lubukusu. The direct interpretation of the word would have made the patient embarrassed and uncomfortable, the interpreter interprets it as follows "mwakholile**"** meaning, did you do it? The patient understands and immediately gives a response without signs of embarrassment. Turning to the doctor the interpreter uses the real English word for the act which enables the doctor to proceed with the consultation. Similarly, in the second extract the doctor talks about 'intercourse' but in the interpretation the interpreter says, 'You were with him' thus managing very well the emotions of both the doctor and the SP. The interpreter's knowledge of the Bukusu cultural dictates on vocabulary usage and application of euphemism leads to gain in these excerpts.

The data discussed in the preceding section reveals that there is loss of meaning in medical interpretation in monolingual Bukusu patients and non-native doctor's medical consultation. The loss occurred due to the nature of scientific language which made it difficult for the interpreters who had no medical experience to find equivalents in Lubukusu. To curb this constraint, the government should train medical interpreters and post them in all medical facilities where non-native doctors attend to monolingual

patients. The training for medical interpreters should comprise intensive exposure to the medical jargon in order to prepare the interpreters adequately for medical interpretation. This can be inferred from the observation made in this study that interpreters who had medical experience yielded gain in meaning during interpretation.

4.6 Suggested Solutions

Interpreters and especially those interpreting in the medical setting face a number of challenges. These challenges as discussed in section 4.4 range from those that are linguistics in nature, context related and cultural challenges. In order to deliver the intended message, interpreters design ways of maneuvering the challenges and by doing so they end up using particular interpretation techniques to help achieve the required level of equivalence. Basing on the data collected by this research, constraints in medical interpretation may be resolved by the following suggestions.

4.6.1 Use of Medical Personnel in the Interpretation

The data in this research shows that the instances where the interpreter had some medical experience the interpreter delivered the highest level of equivalence. Such interpreters have sufficient knowledge of both the ST and the TT cultural sensitivities a quality that helps them package information in the best way possible. Interpreters with medical experience know the most appropriate words to use to describe the symptoms of a given ailment. When interpretation is done by an interpreter with medical knowledge, the interpreter is able to understand the symptoms very well and deliver them to the doctor as if he /she were describing their personal experience. There are a number of situations where the patient is not able to articulate their situation properly even in their first language due to either the pain of the ailment or their physiological make up. In such situations, an interpreter plays a vital role in

understanding the patient and describing the symptoms to the doctor using the most appropriate medical terminology leading to the most precise diagnosis.

The following conversations are extracted from medical consultations between non-Bukusu doctor and a Bukusu patient which were interpreted by a medical officer. There is tremendous gain of meaning in that the interpreter who is a medic expresses the patient's utterance in a manner that even if the patient was fluent in English he or she would not.

81

SP: Ese taktari chisuku chibili chino neninyala mbulila buchuni.

/ese taktari tʃisuku tʃiβili tʃinɵ neniɲala mβulila βutʃuni/.

(Me doctor these two days that have passed, when I urinate I feel pain.)

I: Pain on micturation

SP: Ne nanja khukhwinyala mbulila oli mayira mala buchuni ne kamenyi karula

/ne nanja xuxwiɲala mβulila ɵli majura mala βutʃuni ne kameɲi karula/

(When I start to urinate I feel pain and pus comes out before the urine.)

I: A painful discharge before micturation.

The use of medical terminology micturition in the example above gives rise to gain in this conversation. Only medical experience can give someone knowledge of such scientific terms. This is why we recommend that medical officers be given some basic training in interpretation to equip them for medical interpretation when need arises. The following conversation which recorded gain in meaning was also interpreted by a medical officer.

82

SP: Lundi ndi nende khukhwiyakalakho atiti
/lundi ndi nende xuxwijakalaxɵ atiti/

(Again I am itching a little.)

I: There is itchiness.

D: Where?

I: Wae, wiyakala wae?

/wae, wijakala wae/?

(Where, where are you itching?)

SP: Khumwena.

/xumwena/.

I: Just at the pubic symphysis

It is evident in the above dialogue that the interpreter was able to understand the SP's utterances so well and used the most precise medical terminologies to interpret the utterances to the doctor. The observation made by the researcher during the recording of this consultation indicates that there was no constraint and the consultation flowed very swiftly. Again, in the dialogue below, the interpreters medical experience makes the interpretation easier. When the doctor asks the SP about her last menses, the SP says it was ending the following day and the interpreter clarifies by telling the SP that. "We always want the day it started."

83

D: When was her last period?
I: E period yoo emalilisi yaba lina?

/e periɵd jɵɵ emalilisi jaβa lina/?

(When was you last period?)

SP: Emala muchuli.

/emala mutʃuli/

I: Khwenyanga esuku nio wanja. She is finishing tomorrow

(We always want the day you started.)

/xweɲaŋga esuku niɵ wanɟa/. She is finishing tomorrow

D: Is she vomiting?

I: Bali orusia? (That are you vomiting?)

SP: Yee ndusisie khabili

/jee ndusisie xaβili/ (yes I vomited twice)

I: History of vomiting, two episodes.

The interpreter's medical experience is such an added advantage in medical interpretation. In the example above the interpreter helps the patient to give the kind of responses to the doctor's questions that are important in diagnosing the ailment. In addition to this gain is realized in the words that the interpreter uses when speaking to the doctor. She reports using the required medical language, 'history of vomiting, two episodes' this proves that medical officers are the best interpreters in medical consultations. In the next dialogue again the interpreter had some medical experienced which she exploits in the medical interpretation below. The doctor simply tells the SP to keep warm but the interpreter advises the SP to avoid cold and dust and to use warm or hot fluids most of the time and put on the must faithfully to avoid getting infected by the corona virus.

84

D: But then try and make sure you do not expose as much as possible.

I: Okhera mumbeo sana nende nio lufumbi luli sana ta, lundi orumikhile bibindu bibile buli khase. Lundi sai bise biakorona nobio wakhaba nofungile kamolu ofwale e masiki

/өxera mumβeө sana nende niө lufumβi luli sana ta, lundi өrumixile βiβindu βiβile βuli xase. lundi sai βise βiakөrөna nөβiө waxaβa nөfuŋgile kamөlu өfwale e masiki/

SP: Mala bubechanga bulume nekafungane e masiki iyo khukhwikhala nayo.

/mala βuβetʃaŋga βulume nekafuŋgane e masiki ijө xuxwixala najө/.

I: She is saying that it is difficult to wear a mask when experiencing the blockage

D: You better prevent than getting corona when you already have the allergy

I: Ne daktare alikho aloma ali buli bulai okhingilile khukhila oli nende e alachi mala lundu korona ekhutile.

/ne daktare alixɵ alɵma ali βuli βulai ɵxiŋgilile xuxila ɵli nende e alatʃi mala lundi kɵrɵna exutile/.

In example 84 above, the interpreter gives the SP long explanations that were not given by the doctor because of the medical experience she has. This study agrees with Davison (2000) who observed that interpreters in medical consultations edit patients' contributions, filtering out affective displays in order to make such contributions relevant to physicians' questions. When the interpreter has sufficient medical knowledge, the outcome of the process of interpretation can be tremendous. The interpreters medical experience enables them to understand exactly what the patient is saying or intends to say in the SL and edits, filtering at the same time making meaningful additions ends up with the highest level of equivalence in the TL. The highest level of equivalence that can be achieved is what is required in medical interpretation.

4.6.2 Repetition

Repetition is one other way of dealing with the challenges of medical interpretation. Cases where loss of meaning was experienced, the doctors recovered the loss meaning by asking the same question another time. In the consultation like in the extract below, the doctor asks questions which are not answered by the discourse given by the interpreter either due to loss of interpretation or lack of response from the patient. This was a case of a patient with symptoms of COVID-19. Given that COVID-19 was a new disease at the time of collecting this data, most terminologies surrounding it were still alien to this population. The interpreter therefore found it really challenging to interpret in this medical consultation. The doctor being cognizant of the challenge helps the interpreter by using repetition. The doctor

circumvents the dialogue and asks the same question until he is satisfied with the response given by the interpreted discourse. Repetition is a vital tool for recovering information loss during medical interpretation. The doctor in the following consultation succeeds in communication by use of repetition.

85

I: Complete loss of appetite over any food.

D: So, you are saying that you are anosemic?

I: Elaborate on that.

D: O yeah you said he has lost the sense of smell?

I: Watibisie bunyali bwe khuunyila?

/watiβisie βuŋali βwe xuuŋila/?

The term anosemic used above is new to the interpreter. The interpreter asks the doctor to elaborate on the word and by repeating the concept using simpler words the interpreter gets it and gives the right interpretation to the SP. He interprets it as, 'watibisie bunyali bwe khuunyila?' "Have you lost the ability to smell?" which gives the exact question asked by the doctor. Repetition as an interpretation strategy is very important in medical interpretation.

86

D: He says…? He is anosemic?
I: Yes he is anosmic.

D: Are you anorexic?

I: Elaborate on that.

D: Have you lost the sense, the desire to eat?

I: Watibisie ehamu ye khulia? Ye khulia siakhulia?

/watiβisie ehamu je xulia? Je xulia siaxulia/

D: Mmmm are you aphonic?

I: Eee elaborate on that.

In example 84, the doctor uses scientific terms anorexic and aphonic whose meaning the interpreter does not know. The interpreter asks for clarification and the doctor repeats these in simpler words. As the interpreter passes this message across into Lubukusu, he too uses repletion as seen in the utterance, ‘watibisie ehamu ye khulia? Ye khulia siakhulia?’(Have you lost the desire to eat? To eat food? Repetition is a valuable interpretation strategy in medical interpretation as it helps clarify pieces of information that are not clear.

87

D: Is he dysnic, is he dysnic?
I: *silence*

D: Does he feel difficulty in breathing?

I: Obonanga bulume khuela?

/Θβɵnaŋga βulume xuela/

In the objective that explores the interpretability of English Medical terms into Lubukusu, English is the Source Language while Lubukusu the Target Language. In the conversation above, the doctor is using medical jargon which the interpreter does not understand. The interpreter keeps on asking the doctor to elaborate and so the doctor asks the same question more than once at times using simpler terms; at the end of it all, the interpreter is able to understand the question and interprets it correctly. Repeating the questions posed to the patients several times is one way of ensuring the doctor gets the right and sufficient information for proper diagnosis.

4.6.3 Explicitation

Explicitation is one other way of dealing with interpretation constraints in medical interpretation. Interpreters add textual cohesive devices and elaborate issues in the target texts to make the implicit information in the source texts explicit. In medical interpretation elaboration is key. In cases where the interpreter has medical

experience, the interpreter elaborates explanations given by the doctor to the patient and those spoken by the doctor to the patient. To overcome most interpretation constraints this study suggests that whenever an interpreter is interpreting in a medical consultation, they should employ elaboration and a detail explanation of what is being said.

4.6.4 Training Medical Interpreters

The data collected by use of the questionnaire designed for interpreters reveal that none of the interpreters recorded in this study had had any formal training in interpretation. Most interpreters in medical interpretation are relatives to the patients and medical personnel who are not trained in interpretation. The question as to whether the interpreter had received any formal training in interpretation yielded the following responses: Zero YES and Twelve NO out of the total twelve respondents. Similarly, the question on the doctor's questionnaire on who does the interpretation whenever they needed interpretation, showed that none of them had ever been interpreted by a trained interpreter as seen in the following figure 2.

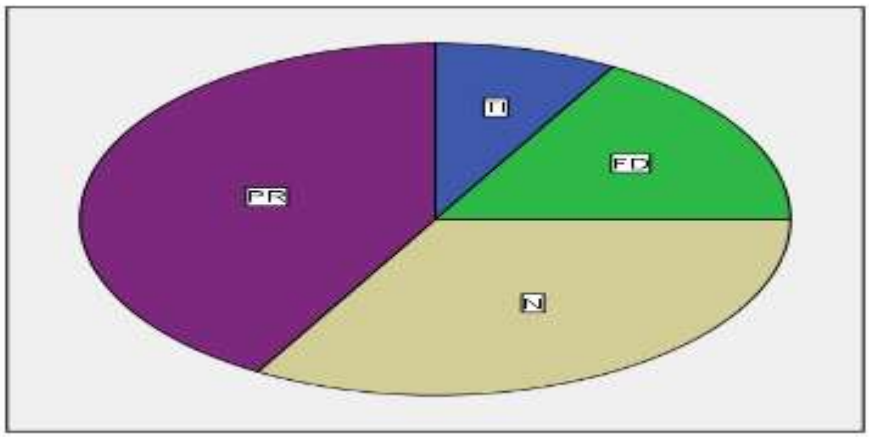

Figure 4.2 Interpreters in Health Facilities

TI stands for Trained Interpreters. None of the twelve doctors had ever been interpreted by a trained interpreter during medical consultations. Interpretation in medical consultations was done mostly by the patient's relations (PR) as revealed from six out of the twelve doctors. Patient's relations in this study are those people the patients rely on for interpretation who include family members, friends and fellow patients. N which stands for nurses was the second popular group of interpreters. It had a frequency of five out of twelve which means that nurses are relied upon to interpret in medical consultations where the patients do not have someone to interpret for them. FD stands for Fellow Doctors or a situation where a doctor who is proficient in both Englih and Lubukusu interprets for the doctor who does not know Lubukusu. Two doctors indicated that their colleagues who are doctors like themselves did interpret for them.

The implication of these finding is that interpretation in medical consultations is done by mere trial and error. This could be one of the reasons why there are cases of misinterpretation which affect diagnosis. Training interpreters in medical interpretation will be one way of ensuring that Kenyan citizens access and benefit from services offered by medical officers with whom they do not share a language. All the twelve doctors recommended that the government trains and employs interpreters in health facilities. Majority of the doctor recommended that medical interpretation should be made a full course of its own so that interpreters are trained specifically to work in health facilities Interpretation is important so medical interpretation should be taught as a course and made a full career of its own.

The data in this study indicate that there is a substantial number of patients visiting the health facilities who require interpretation services. The responses on the doctor's questionnaire from the tool on the number of patients in need of interpretation as tabulated below show that forty percentage of the patients require interpretation whenever they seek medical services from a doctor with whom they do not share a language in this case Lubukusu. Table 4.8 below shows the percentage of patients who need interpretation in the health facilities visited by the researcher.

Table 4.8 The percentage of patients who require interpretation

No of patients in need of interpretation		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	50+	0	0.00	0.00	0.00
	50	2	15.4	15.4	15.4
	40	8	61.5	61.5	84.6
	30	2	15.4	15.4	100.0
	Total	12	100.0	100.0	

The table above shows that eight out of twelve doctors who filled in the questionnaire encounter forty percent of patients who require interpretation during medical consultations. Two doctors had encountered about fifty percent and two had encountered only thirty percent. On the whole, these figures are a proof that there are cases of patients who need the assistance of interpreters during medical consultation. Thus the role of the interpreters in medical consultations should be considered with gravity.

4 .7 Applicability of the Pragmatic Model of Simultaneous Interpretation

Setton (1999) concept of the 'meta-language' is the best in accounting for time lag as a constraint in interpretation. Settton takes note of an intermediate conceptual language that is believed to bridge the gap between the source language speech and the interpreted speech in the target language. In the PMSI it is formalized as a "language

of thought" (LOT). The LOT attempts to explain what happens in the interpreter's mind between the time the interpreter hears the Source language utterance and the time the interpreter articulates the message in the Target language. The interpreter's management of time lag also known as the ear-voice span (EVS) (Cokely, 2014) is a very valuable measure of the effectiveness and success of the interpreting process. We carried out a close examination of instances of the interpreter's ability to maneuver the EVS challenges and observed that EVS is one challenge that an interpreter has to overcome in order to succeed in interpretation. This was only possible by applying the PMSI concept of the 'Meta Language'. The model is thus applicable to the study as it satisfactorily accounted for time lag as a constraint in interpretation of medical consultations. The Pragmatic Model of Simultaneous Interpretation operates on four principles namely: the principle of incrementality, the holding principal, efficiency and pragmatic compensation (Setton, 1999).

In the first principle, interpreters produce speech before the source-language utterance is complete on the basis of a contextualized mental model, or of a logical or propositional form. This principle was adhered to on a small scale by interpreters who had some medical experience especially at times when the patient seemed not to find words to use to explain a symptom of an illness that the interpreter was well familiar with. Basing on the results of this study, we recommend that this principle be applied only sparingly in medical interpretation. There is that bit of healing that comes from "being listened to", the healing process begins from here. When a patient is explaining anything however irrelevant it may appear, they should be given time to speak it out completely. It will be a real disservice to the patient if the interpreter does not allow him or her to explain the situation fully but keeps on interrupting and completing the explanation. It is the patient who experiences the discomfort of the ailment and so

should be allowed to explain what they are feeling without interference. The principle of incrementality is essential in other forms of Simultaneous Interpretation but basing on the results of this study, we recommend that it should not be used in medical interpretation. This study therefore advises interpreters not to apply the principle of incrementality in medical interpretation.

The second principle is the place holding principle. In this principle, the interpreter produces approximations for segments which he/she has not fully understood yet. The place holding principle of simultaneous interpretation was responsible for most loss incurred in meaning in this data. When an interpreter produces approximations of utterances he or she has not fully understood there are very high chances of misinterpretation which may be so costly in medical interpretation. Medical interpretation deals with real life and so approximation and guessing meaning should never occur. Any misinterpretation in medical consultation can lead to misdiagnosis and subsequently to loss of life. Such serious matters of life cannot be interpreted by mere approximations and interpretation of segments that have not been understood by the interpreter. Medical interpretation is very serious and the interpreter should aim at nothing less than the highest possible equivalence. This second principle is not applicable in medical interpretation.

The third principle is the principle of efficiency which represents the input received and the result of its processing as concisely and efficiently as possible. This third principle is the most suitable principle in medical interpretation. The aim of any instance of interpretation is to ensure efficient communication is achieved between interlocutors who do not share a language. The interpreter is a tool that makes this communication possible by utilizing his or her linguistic nuances in the two languages involved to deliver the required level of equivalence. As mentioned earlier, medical

interpretation is as delicate a procedure in linguistics as a surgery may be in medicine. In this kind of interpretation nothing should be left to chance; that is the reason efficiency must be the goal and not a choice. The principle of efficiency aims at a balance between the input in the SL and the output in the TL. In a medical consultation, this requires the interpreter to efficiently render the SL utterance in the TL and engender the same reaction in the TL speaking doctor or patient as what the utterance would have engendered in a doctor or patient speaking the SL. If this happens then language will not be a barrier to effective diagnosis in medical consultations.

The fourth principle is the principle of pragmatic compensation. Here the interpreter reconstructs the pragmatic and ostensive dimension of the speech. The principle of pragmatic compensation in simultaneous interpretation forms another very important strand in medical interpretation. Our data reveals that there are instances where the patient lacks the proper word to explain a situation due to contextual constraints. The patient's state of ailment at times may render them incoherent, or some may naturally be poor at articulation. In such cases it was observed that the interpreter does more than just interpreting. The interpreter becomes a communication pillar very much depended upon by the patient. The interpreter utilizes all available resources to ensure they get what the patient says and by addition and explicitation boost the information's power that what the doctor in the TL gets is sufficient for the right diagnosis. The aim of the fourth principle of simultaneous interpretation is practicality and workability: let the doctor and the patient get what each has intended for the other or even better by all means.

The Pragmatic Model of Simultaneous Interpretation as a theory is very much applicable to a study on medical interpretation. Save for the second principle, the place holding principle, all the other three principles apply perfectly to medical interpretation as tested and confirmed by this study.

4.8 Chapter Summary

This fourth chapter has focused on the presentation, discussion and analysis of the data on interpretation in a medical consultation. The chapter has specifically discussed the interpretation constraints observed in the data and the interpretation strategies that interpreters employ in order to deal with the challenges of interpretation. It was observed that interpreters with medical experience engendered gain in interpreting between a non-native doctor and a Bukusu patient. The data established the presence of interpretation constraints in interpreting English-Lubukusu medical discourse some of which lead to loss in meaning. To overcome the constraints interpreters employed a number of strategies such as addition, explicitation, filtering and shifts which in some cases helped interpreters to achieve gain of meaning in the interpretation.

This study notes that most cases of meaning loss were incurred in interpretations done by interpreters who had no medical experience. As observed from the interpreter's questionnaire, none of the interpreters had been trained in interpretation. Interpretation in the health facilities visited by the researcher was done by either relatives of the sick, their friends, medical officers and even social workers at the hospitals. We have suggested ways of dealing with interpretation constraints in English-Lubukusu medical discourse and outlined the contribution of this study to the Pragmatic Model of Simultaneous interpretation, the theory that guided the study. The next chapter is a summary of the findings and conclusion to our study.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The purpose of this chapter is to present a summary of the findings of the study, deduce conclusion, make recommendations and suggest areas for further research and improvement. This study sought to find out the nature of interpretation in a non-native doctor-Bukusu patient medical consultation. A summary of the interpretation constraints encountered in this kind of interpretation is outlined in this chapter. Also, a summary of the interpretation strategies employed by interpreters as they maneuver around the constraints encountered in interpretation is given. The chapter sums up the entire study by making vital recommendations on medical interpretation in general and on areas for further research.

5.2 Summary of the Findings of the Study

This study investigated interpretation between English and Lubukusu in a medical consultation. The study employed a mixture of both qualitative and quantitative approaches of data collection and analysis. Mainly the research applied the analytical design. Twelve doctors, twelve interpreters and twelve nurses formed the sample for the study. These were selected by judgmental sampling and recorded in simulated medical consultations which yielded a linguistic population of ten thousand two hundred and seventy seven words and phrases. Questionnaires and observation were also used in collecting data for the study. After recording the consultations, the researcher listened to the audios and transcribed (see Appendix XVII) them prior to the analysis. The questionnaires were sorted coded and analyzed by SPSS computer program. The results of the questionnaires are presented in tables showing percentages and frequencies while the recorded data is presented in descriptive

narration. In summary, the following were the results presented as per the objectives of the study.

5.2.1 Interpretability of English Medical Discourse

The data collected in this research has revealed that there are English scientific terms that have no equivalents in Lubukusu and are therefore non interpretable into the language. The words that fall into this category are those that lack equivalents in Lubukusu the Target Language and any attempt to interpret them by explaining or elaborating does not yield the intended meaning. These words as recorded in Table 4.1 are a problem to interpreters which causes misinterpretation and miscomprehension in medical interpretation. The inability to interpret such words thwarts communication between the care givers and the patients which may result in misdiagnosis and giving wrong treatment to the patients.

5.2.2 Constraints in Medical Interpretation

The study found that there are constraints in medical interpretation between English and Lubukusu. The data collected and analyzed indicated that linguistic differences between English and Lubukusu pose real challenges in interpreting English-Bukusu medical consultations. The linguistic differences include differences in the phonology, morphology, lexical and syntax of the two languages. In terms of phonology, the fact that Lubukusu does not allow free occurrence of voiced consonant and the phonotactic rule that does not allow syllables in Lubukusu to have codas was a challenge to interpretation as this laid a heavy mental task on interpreters while transferring information from one language to the other. Vocabulary and syntax presented the most difficult linguistic challenges. In terms of vocabulary; English has special scientific terminologies used in medical discourse which have no equivalents in Lubukusu (refer to table 4.1). Whenever interpreters encounter such

terms it is difficult to interpret them and sometimes borrowing and explicitation strategies are remedies for these constraints but many were the cases when no interpretation was offered. The syntactic differences between the two languages posed another challenge to interpreters. English allows both right and left branching in the NP whereas NP in Lubukusu are exclusively right branching. Cases where interpreters applied word for word interpretation without inverting the order of elements in a sentence gave rise to meaning loss.

Cultural constraints emerged in the data collected. Interpreting culturally guarded words and phrases was also challenging to interpreters and at times it led to loss of meaning. The way of life of the Bukusu people does not allow them to name certain entities directly by their real linguistic terms but by euphemism. English on the other hand does have a culture of openness and everything is named in black and white. The interpreter had to sensitively pass information from English to Lubukusu without causing the patient shame and embarrassment and at the same time interpret plainly for the doctor to get the exact message necessary for diagnosis, thus making the entire process more complex than it would have been between languages that share a culture.

Contextual constraints arose from the different conditions of the interpreter, the patient and the situation under which the interpretation was done. The interpreter's inability to reproduce the SL utterance efficiently in TL due to inadequate vocabulary was observed. In some cases the patient gave huge chunks of information which could not be managed by the interpreter thus forcing the interpreter to leave out some utterances even when they were essential.

It was further observed that paralinguistic cues used by both the patients and the doctors were challenging to the interpreters. Whenever paralinguistics were used by interlocutors the interpreter remained silent leaving either party to figure out the meaning by themselves. Finally time lag was a big constraint to interpretation in this study. The time that an interpreter has at his or her disposal during which to change the SL utterance into an equivalent TL utterances determines the quality of interpretation. Moments when interlocutors uttered huge chunks of information before allowing the interpreter to interpret posed challenges to the interpreter as the interpreter at times could not remember all that had been said. The second form of time lag was experienced in the speed at which utterances were made in the two languages. Whenever the doctor or the patient spoke at a very quick speed without allowing enough time for the interpreter to come in at manageable intervals, the interpreter missed out on vital details. Time lag is a constraint in medical interpretation.

5.2.3 Interpretation Strategies

It was observed that interpreters use a number of strategies in order to overcome the constraints enlisted in section 5.4. The study established a significant effect of the choice of interpretation strategies on the level of equivalence achieved in medical interpretation. Whenever a doctor used a terminology that was not known to an interpreter or that had no equivalent form in Lubukusu, the interpreter would use explicitation strategy in which the terminology is interpreted by an explanation in Lubukusu instead of a word. Explicitation was noted to be the most commonly used strategy in medical interpretation and the most preferred by interpreters. Borrowing is another strategy that was used by interpreters in this study. It was the second most popular interpretation strategy after explicitation. Borrowing is a strategy where a

number of English scientific words which have no equivalence in Lubukusu were adapted to the linguistic features of Lubukusu and used in Lubukusu with the same meaning. Borrowing is the strategy that helped interpreters to deal with non-equivalence between English and Lubukusu.

Reduction and addition are other strategies used in this study. Instances where interpreters compress the original SL utterance and reproduce it in fewer words in the TL amounts to reduction strategy while instances where interpreters use more words in the TL utterance than what was in the original SL utterance are examples of addition strategy. This study recorded a number of interpretation strategies employed by interpreters which include the use of shifts, filtering and generalization in addition to those mentioned. Generalization as an interpretation strategy was the least commonly used and this study does not recommend it in medical interpretation. We conclude that interpreters in a Bukusu-English medical consultation employ a number of interpretation strategies both consciously and unconsciously which help increase the level of equivalence achieved.

5.2.4 Loss or Gain of Meaning in Medical Interpretation

The findings of this study indicate that the interpretation strategies used by interpreters in English–Lubukusu medical consultation have a positive effect on the quality of interpretation. The interpretation strategies that were well utilized lead to the attainment of gain in meaning. The interpreter's proper use of the strategies of interpretation engendered gain in meaning. It was further observed that interpreters with medical experience used their medical knowledge in interpretation in a way that lead to gain in meaning. We have cited cases where the interpreter uses the exact precise word which may not have been used by a patient speaking the same language with the doctor. This made it easier for the doctor to make the correct diagnosis.

This study notes loss of meaning in medical interpretation. Cases where the original meaning of the ST utterance was not adequately represented in the TT utterance occurred mostly in the following situations. The times when the interpreter did not understand the non-native doctor's utterance, he/she would deliver a different meaning to the target audience who in this case was the monolingual Bukusu patient. Also, the instances when the patients did not articulate their issues well lead to difficulties in interpretation and subsequent loss of meaning. Meaning loss occurred due to the interpreters' generalization of the meaning of some words that have specific meaning in the TL. Loss also occurred when the interpreter used euphemism in order to cater for the cultural dictates of Lubukusu. Interpreting euphemic meaning into English gave rise to meaning loss.

The data in this study revealed both inevitable and avertable loss of meaning in medical interpretation between non-native doctors and Bukusu patients. Meaning loss affected the quality of diagnosis given by the doctor. A case to cite is when the doctor said 'feat' and the interpreter interpreted it into Lubukusu as 'feed'. Such misinterpretations do bear very serious consequences in medical interpretation. In medical interpretation, misinterpreting just one word may lead to loss of the patient's life due to misdiagnosis and giving the wrong treatment and this has far reaching repercussions on the doctor's career.

5.2.5. Solutions

This study recommends training and employing interpreters in all health facilities as one of the solutions to the language problems between non-native doctors and patients who are not proficient in English. The data revealed that interpreters who had some medical knowledge or experience produced the highest level of equivalence in

interpretation. We therefore suggest that medical personnel should be given basic training in interpretation so that when a situation arises they may be in an even better position to interpret. In cases where a non-native doctor encounters a native patient who is not proficient in English, the first option is to seek assistance from a medical personnel near him or her who is proficient in both languages. It is therefore very important to equip these medical officers with knowledge about medical interpretation to enable them provide the best services when need arises.

As observed in chapter 4 section 4.6, repetition and explicitation are some of the interpretation strategies that served as solutions to the constraints encountered during interpretation in a Bukusu- English medical consultation. This information should be transmitted to the medical personnel so that they can utilize these strategies in medical interpretation in order to achieve higher levels of equivalence.

The government should train medical interpreters and post them in certain health facilities where there are chances of foreign doctors attending to local patients who are not proficient in English. As the government strives to get the recommended doctor-patient ratio and ensure citizens access medical services, the government will time from time bring in medical personnel from other countries who speak exclusively English. In order to prepare well in advance for such situations, the government needs to train interpreters and post them in hospitals where non-native medical personnel are working to provide interpretation services whenever required.

5.3 Implications of the Findings

The findings of this study have the following implications: There are so many doctors working among patients with whom they do not share a language. Language becomes a barrier to accessing quality health services in such circumstances and interpretation

is the only solution to the problem. Considering the number of patients who require interpretation services in medical interpretation as seen in chapter 4 sub-section 4.6.4, this study observes that interpretation is a very vital component in medical consultation between a doctor and a patient who do not share a language. Interpretation is a tool that enables communication flow in this very important event. This implies that interpretation is a necessary component in medical consultation and so interpreters in a medical consultation need proper training, preparation and remuneration.

The findings of this study have implications for researchers in African languages. This study reveals that pacing between English and Lubukusu in interpretation is a complex and challenging endeavour. Research should be done on interpretation between African languages and English to concretize this observation. There is need to ascertain the state of interpretation between two or more African languages in order to enrich the existing knowledge on interpretation and on African languages in general. This research reveals that there is a lot to be done in terms of research on interpretation in African languages.

The findings of this study have implications for the curriculum developers of institutions that train interpreters. Institutions that train interpreters need to incorporate medical interpretation in their curriculum. Medical interpretation is very important in accessing basic health by the section of the population that are not proficient in English. As already noted in the preceding sections of this study, medical interpretation is unique, serious and requires extremely high levels of precision. In medical interpretation human life is at stake and that gives no room for misinterpretation. This revelation will help interpretation training colleges to step up training, especially for interpreters in medical settings. The training of interpreters for medical interpretation should include basic medical knowledge and exposure to medical terminologies that

can enrich interpretation as observed from the medical officers who interpreted in this study.

The results of this research have implications to both the county government of Bungoma and the National government. These results shed light on the situation on the ground at the various health facilities where non-native doctors are working. The study therefore gives very vital feedback on the provision of basic healthcare services to the citizens at the grass roots. Both the national and county government should take up the challenge of training and posting interpreters in health facilities in order to ensure access to quality medical services by its citizens.

5.4 Conclusion

The following conclusions were made from the findings of the study in relation to the four objectives:

There are English medical terminologies that have no equivalents in Lubukusu a phenomenon that renders such terms uninterpretable. There is a substantive number of monolingual Bukusu patients who need the help of interpreters during medical consultation with non-native doctors. The services of interpretation are not only required by the monolingual patients but also by the non-native doctors in order to make the right diagnosis. Interpreters in medical consultations encounter linguistic, contextual and cultural constraints. In order to overcome the challenges of interpretation, interpreters use interpretation strategies such as generalization, addition, shifts, reduction, explicitation and borrowing. There is loss of meaning in medical interpretation which affects diagnosis and puts the patient at the risk of receiving faulty treatment. Finally, interpreters with medical experience render a higher level of equivalence which egenders gain of meaning.

5.5 Recommendations

The study made the following recommendations based on the findings:

i) The government should train interpreters and employ them in medical institutions to interpret for non-native doctors. Medical interpretation should be made a course of its own and a career as well so that people can take the training, be employed and be paid for these essential services.

ii) The training for medical interpreters should involve intensive exposure to the scientific terminologies recorded in this study.

iii) This study recommends that interpreters acquire extensive knowledge, experience and passion for both the source and target language to enable them interpret accurately from the SL to TL. Semantic problems related to scientific terminologies, contextual meaning, synonyms and antonyms can be solved by consulting language experts and or various language dictionaries of both English and Lubukusu. Most languages have words with multiple meanings, knowing when to use the correct homonyms when interpreting will make the process of interpretation successful.

iv) We recommend that the interpreter be well versed in the vocabulary of both the source and target language. This may require the interpreter to commit to learning the two languages deliberately and extensively. Idioms and culture specific terminologies posed challenges in interpretation. Moreover, there are expressions that have different literal and actual meaning. To overcome these challenges, we recommend that the interpreter understands the correct meaning behind expressions found in the SL and then look for their alternatives in the TL in order to attain the required level of interpreting.

Reading extensively and practicing to speak both languages is one way of acquiring knowledge of a language. In order to get the meaning and usage of idioms and special terminologies of a language, we suggest that interpreter immerse themselves fully in the languages they interpret.

v) Medical officers should be given basic training on interpretation. This study observes that interpreters who had medical experience yielded the highest level of equivalence in interpretation. Therefore, medical officers should be given the necessary information on interpretation strategies; this will help them to interpret for fellow doctors who may need interpretation during medical consultation.

vi) Doctors should learn the local language that is used in the particular community where they are posted. When a patient communicates directly to the doctor without a go-between, a relationship of trust and empathy develops between a doctor and a patient which quickens the healing process. Language barriers that may hinder clear communication between a doctor and a patient can be lifted by the doctor's effort to speak the patient's language.

5.6 Areas for Further Research

The following areas warrant further research in order to create more knowledge on interpretation involving Lubukusu language, on interpretation and specifically on medical interpretation.

Research should be done on medical interpretation between doctors with no knowledge of sign language and patients who use only the sign language in communication.

A study should be carried out on the nature of interpretation between non-native doctors and patients who are proficient only in any other Kenyan local language in order to compare the results with those observed here.

A study that would look into interpretation between English and Lubukusu in any other setting should be carried out.

A study may be done to establish whether interpreters of English- Lubukusu in non-medical settings encounter the nature of constraints observed in the data in this study.

A study may be carried out on interpretation between two African languages to find out whether interpreters face the challenges observed in this study.

A study may be carried out on interpretation between Lubukusu and Swahili in a medical setting.

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APPENDICES

APPENDIX I: Letter of Introduction

December, 2020

Dear respondent,

I am a postgraduate student undertaking a doctorate degree in Linguistics in the department of Language and Literature Education in the School of Arts and Social Sciences at Masinde Muliro University of Science and Technology. I am carrying out a study on **"Interpretation of English-Lubukusu Medical Discourse in Bungoma County Hospitals in Kenya"**.

I am using the attached questionnaire to collect information for the study. It is my kind request that you fill the questionnaire, providing the relevant information to facilitate the study. Please use the space provided to fill in the information required as objectively and honestly as possible. The information provided will be treated with strict confidentiality and for the purpose of this study only.

Thank you.

Yours faithfully,

Mary Nasambu Masika

APPENDIX II: Informed Consent

Consent to participate in research on **"Interpretation of English - Lubukusu Medical Discourse in Bungoma County Hospitals in Kenya"**

Dear respondent, you are asked to participate in a research study conducted by Mary Nasambu Masika, from the Department of Language and Literature Education at Masinde Muliro University of Science and Technology. The results of this research will contribute to a PhD thesis in Linguistics. You were selected as a participant in this study because of your experience as a medic working in Bungoma County. Your experience working with patients who are not proficient in English at this health facility will contribute much to this study.

PURPOSE OF THE STUDY

This study examines the techniques used by interpreters to interpret for the non-native doctors and Bukusu patients during medical consultations in Bungoma County hospital. It explores interpretation techniques used in interpreting English-Lubukusu medical discourse and establishes whether there is gain or loss in the use of the techniques.

2. PROCEDURE

Invitation

You are invited to take part in this study because of your experience as a medic working in Bungoma County. You are therefore free to participate by giving as much information as you can in the questionnaires as well as participate in the simulations of the consultations either as a doctor, an interpreter or as a Standardized Patient.

Participation

If you do not wish to answer any of the questions on the questionnaire, you may skip it. During the simulations, the entire consultation session will be tape-recorded but you

will not be identified by your name on the tape. The research team consisting of the researcher and an assistant researcher will be present in the consultation room.

Length of time for participation

Responding to the questionnaire may last between 5 to 10 minutes, and the simulated consultations may last between 10 to 15 minutes.

Location/Time

Responding to the questionnaire will take place in the hospital preferably in your office at the time of your convenience while the simulated consultations will be conducted in the doctors' consultation rooms especially at lunch hour or at a time of convenience for both the doctor and the nurses.

3. POTENTIAL RISKS AND DISCOMFORTS

There is a slight risk that you may share some personal or confidential information with the research team by chance, or that you may feel uncomfortable talking about some of the patients' symptoms. However, we do not wish this to happen, and you may refuse to answer any question, if you feel they are personal. If you feel that any question or concern touches on an issue you may be uncomfortable with you are free to point it out and we shall avoid such issues.

4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

There will be no direct benefits to you. Your participation is likely to help in ascertaining the effective interpretation strategies needed in a doctor-patient consultation. The findings of the study may necessitate and influence decision making in doctor-patient interactions in a situation where the two do not share a language. The medical practice is bound to benefit from the outcome of the study for the findings and recommendations. Patients and society, generally, could benefit from the results especially in establishing the need for probably training and employing interpreters specifically in the health facilities such as this as well as embracing patients' literacy programs.

5. PAYMENT FOR PARTICIPATION

There is no plan to pay participants in the study, but we shall provide a token of Ksh.500 for lunch per participant after the simulated consultations between doctors and simulated patients. This is because of the possibility of having the consultations during lunch breaks probably because of the busy schedule of the doctors and nurses in the simulated consultations.

6. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of ensuring anonymity in the data collecting and reporting of the findings. As a participant, you are free to review your information at any stage in the study process or even withdraw. If information from the questionnaires and simulated consultations with you is used in publication or reports, we will not refer to your identity in any way.

All data will be kept strictly confidential. We will contact you first, to book an appointment for the simulations and second, to inform you about the date and venue to share with you the findings of the study. Additionally, the information recorded is considered confidential, and no one else except the research team will have access to the tapes. Once we are through with them, we will erase all the information from the audio recorders. All data will be only accessed and kept in safe custody by the principal investigator and supervisors using password safeguarded electronic format until the destruction date as per the regulations of the Research and Ethics policy.

7. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you do not want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so. Such unforeseeable termination of participation may be as a result of any conflict of interest or based on the conduct of the participant regarding the integrity of the study.

8. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact Mary Nasambu Masika (maria_maryanne@yahoo.com or +254729099419), the principal investigator, and Dr. David Barasa (davidbarasa@mmust.ac.ke; +254720426683) Dr. Mudogo Bernard (dmudogo@mmust.ac.ke; 0762743607) and Dr. Ralph Wangatia (wangatiahr@gmail.com; +25472123327), Supervisors.

9. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without any penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact us through the contacts listed above.

SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE

.....

APPENDIX III: The Questionnaire for Interpreters

The purpose of this questionnaire is to collect data for a study entitled "Interpretation of English - Lubukusu Medical Discourse in Bungoma County Hospitals in Kenya**"**. **The data collected will be treated with utmost confidentiality and used for the purpose of this study only. Kindly give the information in the space provided. (Indicate with a tick where appropriate).**

1. Please indicate your gender.

i) Male [ ] ii) Female [ ]

2. Please indicate your age bracket

i) Below 40 yrs [ ] ii) Above 40 yrs [ ]

3. What is your level of education?

Post graduate [ ]

Bachelor's degree [ ]

Diploma [ ]

Certificate [ ]

4. Are you a trained interpreter? Yes [ ] No [ ]

5. Are you employed by the government as an interpreter?

i) Yes [ ] ii) No [ ]

6. What is your interpreting experience?

i) Below 5 years [ ]

ii) 6 – 10 years [ ]

iii) 11 – 15 years [ ]

iv) 16 – 20 years [ ]

v) Above 20 years [ ]

7. How long have you worked in this hospital in your current capacity?

i) Below 5 years [ ]

ii) 6 – 10 years [ ]

iii) 11 – 15 years [ ]

iv) Above 15 years [ ]

8. What is the approximate number of patients requiring interpretation services do you encounter in a week?

0-5 [ ]

6-10 [ ]

11-15 [ ]

16-20 [ ]

9. Does interpretation help in making correct diagnosis?

i) Yes [ ] ii) No [ ]

10. If yes, to what degree?

i) Very high [ ] ii) High [ ] iii) Not sure [ ] iv Low [ ]

v) Very low [ ]

11. How often do non - native doctors required interpretation during medical consultations? (Tick whichever is applicable)

Very often [ ] Often [ ] Rarely [ ] Never [ ] Not sure [ ]

12. Have you ever interpreted a non-native doctor - Bukusu patient consultation session?

i) Yes [ ] ii) No [ ]

13. If yes, how do you rate the assistance of the interpretation to both the doctor and the patient?

a. Very helpful [ ]
b. Helpful [ ]
c. Least helpful [ ]
d. Not helpful [ ]

14. Do you encounter the following challenges in medical interpretation? (Tick all that apply)

Time lag [ ]

Difficult scientific terms [ ]

Nature of language [ ]

Cultural differences [ ]

Non – verbal cues [ ]

15. Rank the constraints encountered during medical interpretation. 1= for most encountered 5= for least encountered.

Time lag [ ]

Hard scientific terms [ ]

Linguistics challenges [ ]

Cultural differences [ ]

Non – verbal cues [ ]

16. During interpretation, do you use any of the following strategies? (Tick all that are applicable)

Adding your own information [ ]

Reducing chunks of information into compressed ones [ ]

Shifting linguistic material to streamline information [ ]

Using a general term to refer to a specific idea [ ]

Explaining information [ ]

Using words from other languages [ ]

Repeating information for clarity [ ]

17. Rank the types of strategies you use for interpreting medical consultations. Use **1 = for most frequently used** and **7 = for less frequent**.

Adding information [ ]

Reducing chunks of information into compressed ones [ ]

Shifting linguistic material to streamline information [ ]

Using a general term to refer to a specific idea [ ]

Explaining information [ ]

Using words and phrases from other languages [ ]

Repeating information for clarity [ ]

18. Please describe any constraints encountered in interpreting medical consultation that is not captured above.

.....

.....

.....

.....

19. Describe any other interpretation strategy you use in medical interpretation that has not been captured above.

……

……

……..

……

20 If you have any comment or suggestion about interpreting in the medical consultations please write

.....

.....

.....

Thank you very much.

APPENDIX IV: The Questionnaire for Doctors

The purpose of this questionnaire is to collect data for a study entitled **"Interpretation of English-Lubukusu Medical Discourse in Bungoma County Hospitals in Kenya."** The data collected will be treated with utmost confidentiality and used for the purpose of this study only. Kindly give the information in the space provided. (Indicate with a tick where appropriate).

1. Please indicate your gender.

i) Male [ ] ii) Female [ ]

2. What is your nationality? Kenyan [ ] non- Kenyan [ ]

3. Are you proficient in Lubukusu? Yes [ ] No [ ]

4. For how long have you worked as a doctor in Bungoma County?

i) Less than 5 years [ ]

ii) 6 – 10 years [ ]

iii) 11 – 15 years [ ]

iv) 16 – 20 years [ ]

v) Above 20 years [ ]

5. For how long have you worked in this hospital? > 5 years [ ] < 5years [ ]

6. Which language do you speak with patients in this hospital?

.....

.....

7. In your experience at this hospital, do you ever encounter patients who are not proficient in English?

i) Yes [ ] ii) No [ ]

8. If yes, to what percentage on average?

i) More than 50 [ ] ii) 50 [ ] iii) 40 [ ] iv) 30 [ ]

v) Less than 20 [ ]

9. Do you depend on interpretation during medical consultations with such patients?

i) Yes [ ] ii) No [ ]

10. If yes, who does the interpretation?

a. Trained interpreters [ ]
b. Fellow doctors [ ]
c. Nurses [ ]
d. Patient's relatives [ ]
e. (b) (c) and (d) [ ]

11. How do you normally tell whether the interpreter has relayed the information intended by the patient and whether the interpreter has relayed the information you intended to the patient?

a. Time taken by the patient to respond [ ]
b. The patient's body language [ ]
c. The patients response [ ]
d. Interpreter's body language [ ]
e. All of the above [ ]

12. Does the interpretation help you understand the patient and make the correct diagnosis?

    i) Yes [ ] ii) No [ ]

13. If yes, how can you rate the assistance of the interpreter in making the right diagnosis?

    a. Very helpful [ ]
    b. Helpful [ ]
    c. Least helpful [ ]
    d. Not helpful [ ]

14. Are there times when you feel the interpreter has not relayed the exact information you intended for the patient or the patient intended for you?

    i) Never [ ] ii) Sometimes [ ] iii) Most of the time

15. Would you recommend that the government trains and employs interpreters in health facilities?

    i) Yes [ ] ii) No [ ]

16. Please write here anything you wish to say about interpretation in medical consultations

    .....

    .....

    .....

    .....

Thank you so much.

APPENDIX V: Observation Checklist

Paralinguistic cue	**Yes**	No
The patient coughed during the consultation		
Was there any laughter in the doctor patient dialogue?		
Were there any significant pauses in the consultations		
The speaker raised the pitch of their voices in their speech.		
The interlocutors used a gesture (s) to reinforce their message.		
Ideophones were used to reinforce the message		
Facial expressions used in the conversations.		

APPENDIX VI: Simulated Consultation Guide for the Standardized Patient (Nurse)

My name is Mary Nasambu Masika. I am a student at Masinde Muliro University of Science and Technology pursuing a PhD in Linguistics. I am carrying out a study on **"Interpretation of English-Lubukusu Medical Discourse in Bungoma County Hospitals in Kenya."**

You are proficient in Lubukusu you have been having symptoms of either *typhoid/diabetes/Malaria or any other sickness*. You decide to seek medical attention hospital. You get to hospital and you get into the consultation room of a non-native doctor. Go through the process of the consultation as though it were real? Try to bring out the experience you have had with Bukusu patients who come for medication for the same medical condition or ailment in this hospital and speak only Lubukusu. During the consultation, it is not always the case that you will agree with the doctor in everything he/she tells you. This could be based on your past experience with the symptoms, past medication, preference, values or what you have been told by friends or other medical professionals before. ***I would like to follow how you present your case or engage the doctor in a discussion in Lubukusu aided by an interpreter during the treatment session.*** Please explain yourself as best as you can. I will audio record this dialogic exchange and observe to be able to capture the process of the discussion with the doctor during the consultation and how the interpreter maneuvers between English and Lubukusu dialogic exchanges. Through the findings of this study, we hope that patients and doctors shall benefit in the design of future programs on interpreter - aided consultations.

Your participation is entirely voluntary. If you do not want to be part of this consultation, you are free to say no. If you do not take part now you are still welcome to participate in our other consultations in the coming days. Do you have any questions at the moment?

Please sign for me the consent form as a confirmation of your acceptance (*Should sign after fully explaining the full contents in the consent form*-Appendix ii).

Signature..... dates.....

APPENDIX VII: Simulated Consultation Guide for The Doctor

My name is Mary Nasambu Masika. I am a student at Masinde Muliro University of Science and Technology where I am pursuing a PhD in Linguistics. I am carrying out a study on **"Interpretation of English-Lubukusu Medical Discourse in Bungoma County Hospitals in Kenya."**

You are a non-native doctor in this hospital in Bungoma. A Bukusu patient who is not proficient in English has come for consultation in your consultation room. Can you engage this patient through the process of the consultation as though it were real? Please try to bring out the experiences you have had with Bukusu patients who come for treatment during your day-to-day encounters with Bukusu patients in this health facility.

I would like to follow how you (would) professionally engage the Bukusu patient ***with the help of an interpreter*** *trying to understand the patient's symptoms by asking relevant questions and finally making a diagnosis, explain the condition to the patient and offer treatment.* I will audio record this dialogic discussion and observe to be able to capture the process of the consultation and how the interpreter maneuvers between English and Lubukusu.

Through the findings of this study, we hope that doctors and patients shall benefit in the design of future programs on interpretation in medical interactions.

Do you have any questions?

Please sign for me the consent form as a confirmation of your acceptance (*Should sign after fully explaining the full contents in the consent form*-Appendix II).

Signature ..... dates.....

APPENDIX VIII: DPS Letter

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

Tel: 056-30870
Fax: 056-30153
E-mail: sgs@mmust.ac.ke
Website: www.mmust.ac.ke

P.O Box 190
Kakamega – 50100
Kenya

Directorate of Postgraduate Studies

Ref: MMU/COR: 509099

Date: 14th September, 2020

Masika Mary Nasambu
LAL/H/01-52835/2018
P.O. Box 190-50100
KAKAMEGA

Dear Ms. Nasambu,

RE: APPROVAL OF PROPOSAL

I am pleased to inform you that the Directorate of Postgraduate Studies has considered and approved your Ph.D proposal entitled: ***"Interpretation Techniques and the Translatability of English – Lubukusu Medical Discourse: A Case of Bungoma County Hospitals, Kenya"*** and appointed the following as supervisors:

1. Dr. David Barasa - Department of Languages- MMUST
2. Dr. Bernard Mudogo - Department of Languages- MMUST
3. Dr. Ralph Wangatia - Department of Languages- MMUST

You are required to submit through your supervisor(s) progress reports every three months to the Director of Postgraduate Studies. Such reports should be copied to the following: Chairman, School of Arts & Social Sciences Graduate Studies Committee and Chairman, Department of Languages. Kindly adhere to research ethics consideration in conducting research.

It is the policy and regulations of the University that you observe a deadline of three years from the date of registration to complete your Ph.D thesis. Do not hesitate to consult this office in case of any problem encountered in the course of your work.

We wish you the best in your research and hope the study will make original contribution to knowledge.

Yours Sincerely,

Prof. John Obiri
DIRECTOR, DIRECTORATE OF POSTGRADUATE STUDIES

APPENDIX IX: Research Authorization Documents

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **706379**

Date of Issue: **30/September/2020**

RESEARCH LICENSE

This is to Certify that Miss.. MARY NASAMBU MASIKA of Masinde Muliro University of Science and Technology, has been licensed to conduct research in Bungoma on the topic: INTERPRETATION OF ENGLISH MEDICAL DISCOURSE INTO LUBUKUSU: A CASE OF NON-NATIVE DOCTOR-BUKUSU PATIENT CONSULTATION IN BUNGOMA COUNTY, KENYA for the period ending : 30/September/2021.

License No: **NACOSTI/P/20/6935**

706379

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

APPENDIX X: Athorization Letter from the County Directior of Health

REPUBLIC OF KENYA

COUNTY GOVERNMENT OF BUNGOMA
MINISTRY OF HEALTH
OFFICE OF THE COUNTY DIRECTOR
HEALTH

Telegrams: "MEDICAL", BUNGOMA
Telephone: (055) 30230 Fax: (055) 30650
E-mail: docakatu@yahoo.com
When replying please quote

COUNTY DIRECTOR OF HEALTH
BUNGOMA COUNTY
P O BOX 18-50200
BUNGOMA

OUR REF: CG/BGM/CDH/ATT.RESCH/VOL.1 **DATE:** 2ND DECEMBER, 2020

Mary Nasambu Masika
P.O. Box 190 – 50100
KAKAMEGA

RE: AUTHORITY TO CARRY OUT RESEARCH

Following your application for authority to carry out research on **"Interpretation of English Medical Discourse into Lubukusu: A Case of Non-Native Doctor – Bukusu Patient Consultation in Bungoma County, Kenya ",** I am pleased to inform you that you have been authorized to carry out research for a period ending 30th September, 2021.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the County Director of Health. The soft copy of the same should be submitted through the online Research Information system.

Thank you.

COUNTY DIRECTOR OF HEALTH
BUNGOMA COUNTY
P. O. BOX 18-50200
BUNGOMA

DR. JOHNSTON AKATU
AG. COUNTY DIRECTOR OF HEALTH
BUNGOMA

APPENDIX XI: Permission to Collect Data from Chwele Sub-County Hospital

MARY NASAMBU MASIKA

P.O BOX 1744 – 50100

KAKAMEGA

10TH SEPTEMBER 2021

Received & Seen
22/9/2021

TO THE MEDICAL SUPERINTENDANT

CHWELE SUB- COUNTY HOSPITAL

P0 BOX 202

CHWELE

Dear Sir,

RE: PERMISSION TO COLLECT DATA IN YOUR HEALTH FACILITY

I am a postgraduate student undertaking a doctorate degree in Linguistics at Masinde Muliro University of Science and Technology.

I write to request you to allow me collect linguistic data at your hospital to enable me complete my study on; ***Interpretation Techniques and the interpretability of English medical discourse*** into Lubukusu and vice versa.

The objectives of my research are:

1. To establish the interpretation techniques employed by the interpreters
2. To establish any constraints experienced by the interpreters and
3. To suggest ways of dealing with the interpretation constraints

In the process of collecting data I will require:

1. Your personnel to fill questionnaires
2. To record four simulated doctor- patient consultations.

APPENDIX XII: Permission to Collect Data from Bungoma Referral Hospital

MARY NASAMBU MASIKA,
P.O BOX 1744-50100,
KAKAMEGA
30TH NOVEMBER, 2020

TO,
THE DIRECTOR,
BUNGOMA REFERRAL HOSPITAL,
P.O BOX 14
BUNGOMA

Dear Sir,

RE: PERMISSION TO COLLECT DATA FROM YOUR HEALTH FACILITY

I am a postgraduate student undertaking a doctorate degree in Linguistics at Masinde Muliro University of Science and Technology.

I write to request you to allow me collect linguistic data at your hospital to enable me complete my study on; Interpretation Techniques and the Translatability of English medical discourse into Lubukusu.

In the course of data collection I will require:

1. Your personnel to fill in questionnaires
2. To record four simulated doctor-patient consultations.

The objectives of my research are:

1. To establish the interpretation techniques employed by the interpreters.
2. To establish any constraints experienced by the interpreters and
3. To suggest ways of dealing with interpretation constraints.

The data collected from your facility will be treated with strict confidentiality and used only for the purpose of this study.

Your assistance will be highly appreciated.

Thank you.

Yours faithfully,

Mary Nasambu Masika
Tel; 0729-099-419

Approved
To pay the
requisite fees
7/12/2020

MEDICAL SUPERINTENDENT
BUNGOMA DISTRICT HOSPITAL
P.O. Box 14, BUNGOMA - 50200

APPENDIX XIII: Permission to Collect Data from Lugulu Mission Hospital

MARY NASAMBU MASIKA

P.O BOX 1744 – 50100

KAKAMEGA

10TH SEPTEMBER 2021

TO THE MEDICAL SUPERINTENDANT

FRIENDS HOSPITAL LUGULU

P0 BOX 43

Dear Sir/Madam

RE: PERMISSION TO COLLECT DATA IN YOUR HEALTH FACILITY

I am a postgraduate student undertaking a doctorate degree in Linguistics at Masinde Muliro University of Science and Technology.

I write to request you to allow me collect linguistic data at your hospital to enable me complete my study on; Interpretation ***Techniques and the interpretability of English medical discourse*** into Lubukusu and vice versa.

The objectives of my research are:

1. To establish the interpretation techniques employed by the interpreters
2. To establish any constraints experienced by the interpreters and
3. To suggest ways of dealing with the interpretation constraints

In the process of collecting data I will require:

1. Your personnel to fill questionnaires
2. To record four simulated doctor- patient consultations.

APPENDIX XIV: Permission to Collect Data from Kimilili Sub-County Hospital

MARY NASAMBU MASIKA

P.O BOX 1744 – 50100

KAKAMEGA

10TH SEPTEMBER 2021

THE MEDICAL SUPERINTENDANT

KIMILILI SUB - COUNTY

P0 BOX 490 – 50204

KIMILILI

Dear Sir/Madam,

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APPENDIX XV: Permission to Collect Data from Friends Hospital Misikhu

MARY NASAMBU MASIKA

P.O BOX 1744 – 50100

KAKAMEGA

10TH SEPTEMBER 2021

TO THE MEDICAL SUPERINTENDANT

FRIENDS HOSPITAL - MISIKHU

P0 BOX

Dear Sir/Madam

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2. To record four simulated doctor- patient consultations.

APPENDIX XVI: Extracted Data for Analysis

1

D: I will give you some antibiotics.

I: Khakhua chiandipayotic

/xaxua tʃiandipajotik/

SP: Andipayotic nisio sina?

/andipajotik nisio sina/

I: Khokhukhua kamalesi fulani kakhuyete oone, kamalesi kakera ebactiria mumubili. Bali khobakhua kamalesi fulani kachakhwira birusi fulani mumubili.

/xoxuxua kamalesi Fulani kaxujete oone kamalesi kakera epakitiria mumuβili/

2

D: He is having metemesis?

I: Explain

D: Does he have metemesis? Is the cough, does it have any blood stains?

I: Nakholola kamakhaso ako kabechanga khomo nende kamafuki?

/noxolola kamaxaso ako kaβetʃangaxomo nende kamafuki/

3

D: She may be developing stomach ulcers. I will send her to do an ultra-sound then we can proceed from there.

I: Bali ofwana olinende bidonda bywe munda, taktare alikho akhuruma khukhupa epicha ye munda nie abone nga naendelea.

/βali ofuana olinende βidonda βje munda, takitare alixo axuruma xuxupa epitʃa je munda/

4

D: It only protects against the virus and boasts your immunity

I: Bali tawe ekhulinda busa khukhwamanana nende covid lundi ekhuwa immunity.

/βali tawe exulinda xuxwamanana nende kɵvid lundi exuwa imjuniti /

SP: Naba immunity nisio sina?

/naβa imjuniti nisiɵ sina/

I: She is asking what is immunity?

D: Immunity is the ability of your body to withstand a particular disease or situation.

I: Bali immunity eli ehali ye khuuba nende bunyali bwe khupana nende bulwale bubwicha.

/βali imjuniti eli ehali je xuβa nende βuɲali βwe xupana nende βulwale βuβwitʃa/

5

D: Has she tested covid?

I: Mala waipimakho koviti?

/mala wapimilexɵ kɵvit/

6

D: I think that is an allergy, any history of allergy in the family?

I: Taktari alikho aloma ali oli nende allergy ye mbeo

/ taktari alixo aloma ali oli nende alatʃì je mbeo/

SP: Alachi nisio si?

/alatʃì nisio sina/

I: What is allergy?

D: Allergy is when somebody reacts to something in the environment like cold, dust or food, when exposed to that environmemt the body developes some changes.

I: Bali kumubili kwoo kwaria embeo, sekwenya embeo eyeyo ta, noluli lufumbi nende embeo eyeyo nono yekasia kamolu ili okhilwa khuela okhwokhwo

/βali kumuβili kwoo kwaria embeo embeo ejejo ta, noluli lufumbi nende embeo ejejo nono jekasia kamolu ili oxilwa xuela oxwoxwo/

7

D: I think she has rhinitis I will give her antihystamines to decongest the nostrils.

I: bali alakhuwa antihistamaini yikule kamolu.

/ βali alaxuwa antihistamaini jikule kamolu/.

8

D: He has been using phenobapital to relieve the headache, does he convulse

I: Phenobapital, okelangao nokhola oli chinganakani chitiba namwe?

/fenobapitol okelangao noxola oli tʃinganakani tʃitiβa namwe/

9

D: On top of it we shall give her paracetamol

I: Nono lundi okhocha khumila kamalesi ka pungusia choto bali paracetamol

/nono lundi oxotʃaxumila kamalesi ka pungusia tʃoto βali paracetamol/

10

D: It actually shows you have malaria but no typhoid

I: kokesia kali olinende malaria yong'ene tyhoid selimo ta

/kokesia kali olinende malaria joŋ'ene taifoti selimo ta/

11

D: So we are going to test malaria for malarial parasites and also since it has the same presentation like someone who has typhoid, so we are going to do the widal test also,

I: Balikho bacha khupima malaria lundi bapimekho birusi bia malaria mala lundi bapimekho taifot sikila bwosi bwicha nende chisaini chindala chifwanana.

/βalixo βatʃa xupima malaria lundi βapimexo βirusi βia malaria mala lundi βapimekho taifot sikila βwosi βwitʃa nende tʃisaini tʃindala tʃifwanana/

12

D: and after we requested for the lab test, and actually the urine shows there was infection.

I: mala bachile bamupima mulapu mala bali kamenyi kabelekho nende eshida, eshida yabelekhomo kidoko

/mala βatʃile βamupima mulapu mala βali kameɲi kaβelexo nende eʃida, eʃida jaβelexomo kidoko/

13

D: Now your results are out. There are some bacteria and viruses in your body.

I: bali kamachibu karurile, kokesia kali kumubili kwoo kulimo nende bibindu bibi bikhenyekhana tawe.

/βali kamatʃiβu karurile, kokesia kali kumuβili kwoo kulimo nende βiβindu βiβi βixeɲexana tawe/

14

D: from what you are saying you have anosmia?

I: Elaborate on that.

D: O yeah you said he has lost the sense of smell?

I: watibisie bunyali bwe khuunyila?

/watiβisie βuɲali βwe xuuɲila/

15

D: Could you also be having anorexia?

I: Elaborate on that.

D: Have you lost the desire to eat?

I: Watibisie ehamu ye khulia? Ye khulia siakhulia?

/watiβisie ehamu je xulia? je xulia siaxulia/

16

D: What about mmmm are you having ageusia?

I: eee elaborate on that.

D: Have you lost taste?

I: Olikho nende echamu?

/ olixo nende etʃamu/

17

D: Are you aphonic?

I: (silence)

D: Can he talk maybe he has lost the ability to phone or to sound or to articulate sounds, to voice well.

18

D: I can see he is touching the neck here; does he have that pharyngeal irritation?

I: Olaumianga sina ekokopilo?

/olaumianga sina ekokopilo/

D: I will give you acetamicine to ease the irritation.

I: Alakhuwelesia acetamicine eosie emumilo

/alaxuwelesia asetamaisin eosie emumilo/

D: Ok think from my assessment, you have all the cardinal sighns of covid 19 so it will be important for us to take a sample for testing covid 19. Meanwhile I will give you naproxen to clear the pharyngitis and diethylpropion for anorexia as we chart the next step in his treatment.

I: Bali taktari alikho akhuwa kamalesi bali naproxen nende, nende… kalakhuyeta khukokopilo nende khukobosia khukhwenya khulia.

/βali taktari alixo axuwa kamalesi βali naproksen nende… nende kalaxujeta xukokopilo nende xukoβosia xuxweɲa xulia/

19

D: She complained about headache where in particular?

I: Kumurwe kuchunila wae?

/kumurwe kutʃuna wae/

SP: Taktare kumurwe kumurwe kurema busa kwosi raundi busa nende mbulila lulumbuchu.

I: She is saying that the whole head is painful and she feels dizziness.

Example 20

D: So, you are saying that you are anosemic?

I: Elaborate on that.

D: O yeah you said he has lost the sense of smell?

I: Watibisie bunyali bwe khuunyila?

/watiβisie βuɲali βwe xuuɲila/

21

D: Are you anorexic?

I: Elaborate on that.

D: Have you lost the sense, the desire to eat?

I: Watibisie ehamu ye khulia? Ye khulia siakhulia?

/watiβisie ehamu je xulia? je xulia siaxulia/?

22

D: mmmm are you aphonic?

I: eee elaborate on that.

D: Sound perception, can he talk maybe he has lost the ability to phone or to sound or to articulate sounds, to voice well.

I: Onyala walomaloma nende kumumilo kwoo kwa buli nyanga? Namwe esauti yoo yatibile?

/Θɲala walɵmalɵma nende kumumilo jɵɵ ja kawaida? Namwe esauti jɵɵ jatiβile/?

23

D: So he said that he is feeling that fever? Is it hyperpyretic, pyretic, or is it intenigent?

I: Nono kumubili khubila busa buli saa namwe kulikho nende wakati Fulani namwe kuendelea busa khubila sa pila khukhwima. …

/nɵnɵ kumuβili xuβila βusa βuli saa namwe kulixɵ nende wakati Fulani namwe kuendelea βusa xuβila sa pila xuxwima/.

24

D: Is he dysnic, is he disnic?

I: *silence*

D: Does he feel difficulty in breathing?

I: Obonanga bulume khuela?

/Θβɵnaŋa βulume xuela/?

25

SP: Eee taktari nono mukokopilo muno yani bukhala busa semuli mulai nimwo tawe.

/eee taktari nənə mukəkəpilə munə jani βuxala βusa semuli mulai nimwə tawe/.

I: He says it is sour.

Example 26

SP: Wa wa wa wa nenitakhulakho busa, ouka. Mbona bibindu olichinda.

/wa wa wa wa nenitaxulaxə βusa, əuka mbəna βiβindu əlitʃinda/.

I: He is itching a lot and has observed some insects like lice.

D: Has he used any medication?

I: Warumikhilekho kamalesi kosi kosi?

/warumixilexə kamalesi kəsi/?

SP: Senamililekho kamamyasi tawe.

/senamililexə kamamjasi tawe/.

I: He has not taken any herbs

27

D: I think that is an allergy, any history of allergy in the family?

I: Mulikho nende allergy mufamili yenywe?

/mulixə nende allergy mufamili jeŋwe/?

SP: Alachi nisio si?

/alatʃi nisiə si/?

I: What is allergy?

D: Allergy is when somebody reacts to something in the environment like cold, dust or food, when exposed to that environmemt the body developes some changes.

I: Bali kumubili kwoo kwaria embeo, sekwenya embeo eyeyo ta, noluli lufumbi nende embeo eyeyo nono yekasia kamolu ili okhilwa khuela okhwokhwo.

/βali kumuβili kwəə kwaria emβeə, sekweŋa emβeə ejejə ta, nəluli lufumβi nende emβeə ejejə nənə jekasia kamələu ili əxilwa xuela əxwəxwə/.

28

D*: How old is Owen?*

I: *Owen ali ne kimiaka kinga?*

Owen ali ne kimiaka kiŋa?

SP: Kitaru ne nusu?

/kitaru ne nusu/?

I: Three and a half years.

D: Three and a half, this is your firstborn baby?

I: Wakwanza nie owoo?

/wakwanza nije ɵwɵɵ/?

SP: Mmmm? (*Looking confused)*

29

D: What is your name?

I: Lisina lyoo bali nanu?

/lisina ljɵɵ βali nanu/?

SP: Vivian …. Mfupi

D: How old are you?

I: Olinekimiaka kinga?

/Ɵlinekimiaka kiŋa/?

SP: Likhumi ne tisa.

/lixumi ne tisa/.

I: ninenteen.

D: Where do you live?

I: Omenyile wae?

/Ɵmeɲile wae/?

30

D: How old is she?

I: Bali omwana ali ne kimiaka kinga?

/βali ɵmwana ali ne kimiaka kiŋa/?

SP: Kimiaka tisa

/kimiaka tisa/

I: Nine years old

D: We shall weigh her.

31

SP: Buchafu burura oli kamaira nekhenyala ta bulinga nenja khukhwinyala kibindu kirura emubili eyi kimisiro mala oli miwanga.

/βutʃafu βurura ɵli kamaira nexeŋala ta βuliŋa neŋɟa xuxwiŋala kiβindu kirura emuβili eji kimisirɵ mala ɵli miwaŋa/

I: Some thick whitish discharge from the body.

D: which part of the body?

I: Lubeka sina?

/luβeka sina/?

SP: Nio ninyalilei

/niɵ niŋalilei/

I: The private part.

Example 33

SP: Wabone ekholola mala lundi nekholola ndio yani muchimbafu muno yani kamachukhuru kano mbulila busa bubi sana buchuna sana, lundi kimiuya kiola abundu kienya khukhwima bise bilala.

/waβɵne exɵlɵla mala lundi nexɵlɵla ndiɵ jani mutʃimβafu munɵ jani kamatʃuxu kanɵ mβulila βusa βuβi sana βutʃuna sana, lundi kimiuja kiɵla aβundu kieŋa xuxwima βise βilala/.

I: He has continous coughing with pains in the lower abdomen

34

SP: Nono ese ndikho nende eshida, embeo ne yicha ne kamolu kafungana

/nɵnɵ ese ndixɵ nende eshida, emβeɵ ne jitʃa ne kamɵlu kafuŋana/

I: During cold she experiences na…blockage of the nostrils

SP: Kafungana mpaka nekhilwa khulomaloma alafu chisa enchindi nekakhola oli kafungukha ne ka..ka… kamamila kanja khukwikha oli kamechi kamakali kapisa.

I: Wakhatunga lukali aba ndalomandisi? /waxaloma likali aβa ndaloma ndisi/

The moment she experience nasal blockage…olomile olisina? /olomile olisina/

35

SP: Ndikhilwa khulomaloma alafu kamolu kanja khurusia kamamila kamakali oli kamechi

/ndixilwa xuləmaləma alafu kamələu kanɟa xurusia kamamila kamakali ələi kametʃì/

I: During nasal blockage she has history of inability to talk, the moment the nasal unblocks she experiences a running nose which is watery.

36

SP: Kumumilo kuno sekuli kukwase kwa kawaida tawe sendomalomanga nandi ta yani yabilile khebukhala busa paa eneno alafu ekhololа nono bwosi bwabele bululu bukali sana? (The patient says all these while breathing heavily)

/kumumilə kunə sekuli kukwase kwa kawaida tawe sendəmaləmaŋa nandi ta jani jaβilile xeβuxala βusa paa enenə alafu exələla nənə βwəsi βwaβele βululu βukali sana/? (The patient says all these while breathing heavily)

I: He is phonic with severe, severe…

D: I can see he is touching the neck here; does he have that pharyngeal irritation?

I: Olaumianga sina ekokopilo?

/Ɵlaumiaŋa sina ekəkəpilə/?

SP: Eee taktari nono mukokopilo muno yani bukhala busa buri buri semuli mulai nimwo tawe. (The patient uses a gesture to demonstrate the sensation ‘cutting at the throat)

/Eee taktari nənə mukəkəpilə munə jani βuxala βusa βuri βuri semuli mulai nimwə tawe/.

I: He says it is sour.

37

SP: Omwana akhololа lukali lundi enda emuchuna.

/Ɵmwana axələla lukali lundi enda emutʃuna/

I: He is coughing and has abdominal pain

38

SP: Wabone ekhololа mala lundi nekhololа ndio yani muchimbafu muno yani kamachukhuru kano mbulila busa bubibusana buchuna sana, lundi kimiuya kiola abundu kienya khukhwima bise bilala.

/waβəne exələla mala lundi nexələla ndiə jani mutʃimβafu munə jani kamatʃuxuru kanə mβulila βusa βuβiβusana βutʃuna sana, lundi kimiuja kiəla aβundu kieŋa xuxwima βise βilala/.

I: He has continous coughing with pains in the lower abdomen

39

I: Likondo lyoo Oscar lyang'ona nga lyo mukhana namwe lyo musoreri?

/likəndə ljəə Oscar ljaŋəna ŋa ljə muxana namwe ljə musəreri/?

SP: Eee lyo musoreri. (This was uttered at a high pitch) Then they all laugh…

/eee ljə musəreri/

I: Handsome.

D: Ok so Oscar, is it the first time you are coming to this hospital?

40

I: Bali kabele nende kamakhua

/ βali kaβele nende kamaxua/

SP: Eeeh? (Normal pitch)

D: He was having pain while passing urine.

I: Kabele abele nekeyeta aulila buchuna

/kaβele aβele nekejeta aulila βutʃuna/

SP: Eeeh!!!(High pitch)

D: and after we requested for the lab test, and actually the urine shows there was infection.

I: mala bachile bamupima mulapu mala bali kamenyi kabelekho nende eshida, eshida yabelekhomo kidoko

/mala βatʃile βamupima mulapu mala βali kameŋi kaβolexə nende eʃida, eʃida jaβelexəmə kidəkə/

SP: Omusecha yuno yesi mala khumbolelakho ta!! Yani koo eeeh!!! basecha bosi bakhakhumale (high pitch)

/Ɵmusetʃa junə jesi mala xumβələlaxə ta!! Jani kəə eeeh!!! βasetʃa βəsi βaxaxumale/

I: She is complaining that the husband has not told her anything.

D: Ok so when we saw the results we decided that you also should be treated.

I: Bali nga babone akenako babona bali …

/βali ŋa βaβəne akenakə βaβəna βali/

SP: Eeeh, LONG PAUSE, nono aba kambambisie? (High pitch)

Eeeh, LONG PAUSE, /nənə aβa kamβamβisie/?

I: Is she likely to be infected

D: Most likely

I: Kanyalikhana?

/kaŋalixana/?

SP: Mala papa Deriki nemukania ndi yikhala asi sebaulilanga ta nono bona, aaa! (High pitch and the interjection ‘aaa’ indicating pain)

/mala papa deriki nemukania ndi jixala asi seβaulilaŋa ta nənə βəna, aaa/!

I: She is complaining that the husband is always out and now he has brought her the disease

41

SP: Khumurwe bubweni, likosi nende kumukongo.

/xumurwe βuβweni, likəsi nende kumukəŋə/.

I: On the forehead, the neck and backache.

D: So you suffer the frontal part the osput and the neck?

I: Waumie khubweni emurwe enyuma nende

/waumie xuβweni emurwe eɲuma nende/

SP: Nende anano nende khwikosi. (Pointing at the neck)

Nende ananə nende xwikəsi. (pointing at the neck)

I: The neck

D: Come closer

I: Ichakho aembi nie taktari ali

/itʃaxə aemβi nie taktari ali/

D: So, what did he use to hit this part of the head? (The doctor points at the forehead the spot just above the eye)

I: Karumukhila sina khukhupa amoni?

/karumuxila sina xuxupa aməni/?

SP: Karumikhila libale nende chisimbo.

/karumixila libale nende tʃisimβə/

I: He used a stone and a stick

42

D: So he said that he is feeling that fever? Is it hyperpyretic, pyretic, is it intenigent?

I: Nono kumubili khubila busa buli saa namwe kulikho nende wakati Fulani namwe kuendelea busa khubila sa pila khukhwima.

/nənə kumuβili βusa βuli saa namwe kulixə nende wakati Fulani namwe kuendelea βusa xuβila sa pila xuxwima/.

SP: Chisuku chibili chibirire taktari chichi, kumubili kwabilile busa kwosi mala kuchukha busa lukesi ndakorwanga sina sibi ta mala ekhabonakho ndio ta, khukholola khwosi khwabele angaki sana ekhabonakho ndindi tawe taktari tawe sisienesi nisio sikilile nenicha ndi mundolelkho wakana ndi nende bwalelo nibwo baloma bali khana bwamila waena eyo.

/tʃisuku tʃiβili tʃiβirire taktari tʃitʃi, kumuβili kwaβilile βusa kwəsi mala kutʃuxa βusa lukesi ndakorwaŋa sina siβii ta mala exaβənaxə ndiə ta, xuxələla xwəsi xwaβiele aŋaki sana exaβiənaxə ndindi tawe taktari dawe sisienesi nisiə sikilile nenitʃa ndi mundəlelxə wakana ndi nende βwalelə niβwə βaləma βali xana βwamila waena ejə/.

I: He is saying that in the past few days, he has had continous sweating and hotness of the body and now he is thinking that it is the famous covid.

43

SP: Takitare mwana wa papa papa sekhubea ta kumurwe kutanya, kumurwe kukhola busa kuli pupupu, embeo takitare embeo engali nibiimba busa kamarungeti ata sita lakini embeo. Embeo engali nelundi kumubili kubila nende enda yosi erema. Eremela busa muno muno eeh!

/takitare mwana wa papa papa sexuβea ta kumurwe kutaŋa, kumurwe kuxəla βusa kuli pupupu, emβeə takitare emβeə eŋali niβiimβa βusa kamaruŋeti ata sita lakini emβeə. Emβeə eŋali nelundi kumuβili kuβila nende enda jəsi erema. Eremela βusa munə munə eeh/!

I: She is saying that in the night she is very sick feels fever and abdominal pain.

44

SP: Nono ese ndikho nende eshida, embeo ne yicha ne kamolu kafungana

/nənə ese ndixə nende eʃida, emβeə ne jitʃa ne kaməlu kafuŋana/

I: During cold she experiences na … blockage of the nostrils

SP: Kafungana mpaka nekhilwa khulomaloma alafu chisa echindi nekakhola oli kafungukha ne ka...ka… kamamila kanja khukwikha oli kamechi kamakali kapisa.

PR: /kafuŋana mpaka nexilwa xuləmaləma alafu tʃisa etʃindi nekaxəla əli kafuŋuxa ne ka...ka...kamamila kanɟa xukwixa əli kametʃi kamakali kapisa/.

I: Wakhatunga lukali aba ndalomandisi? The moment she experience nasal blockage…olomile olisina? (What did you say)

/waxatuŋa lukali aβa ndaləmandisi/?

SP: Ndikhilwa khulomaloma alafu kamolu kanja khurusia kamamila kamakali oli kamechi

/ndixilwa xuləmaləma alafu kaməlu kanɟa xurusia kamamila kamakali əli kametʃi/

I: During nasal blockage she has history of inability to talk, the moment the nasal unblocks she experiences a running nose which is watery.

45

SP: Nakhalia sisindu taktari seniulilakho mukhanwa ndi khendia ta yani echamu yatibile mukhanwa wakhara sisindu mukhanwa sewiulilakho oli okholia sindu tawe.

/naxalia sisindu taktari seniulilaxə muxanwa ndi xendia ta jani etʃamu jatiβile muxanwa waxara sisindu muxanwa sewiulilaxə əli əxəlia sindu tawe/

I: Complete loss of appetite over any food.

D: So you are saying that you are anosmic?

46

SP: Ata sebiola munda ta.

/ata seβiəla munda ta/.

I: It is instant vomiting after meals.

D: So how is the vomitus? Postgratio or post projectine…mmm is the vomitus postgratio or projectine?

I: Explain doctor explain

D: Does the baby vomit aaa the vomit the way it comes out does it fall far or just within on clothes?

I: Narusia kamarusio kewe kachuchukhanga aleyi namwe kachichukha sa aembi.

/narusia kamarusiɵ kewe katʃutʃuxaŋa aleji namwe katʃitʃuxa sa aemβi/?

SP: Embi sa, mubikele mwewe.

/emβi sa, muβikele mwewe/.

I: He vomits near

D: Near, projectine okay. And then you say that the baby is feeling hot.

47

D: Is he persistent in feeling the hotness of the body or undulant?

I: Abechanga busa abilanga kila bise namwe khumuda Fulani ne abasa omulai?

/aβetʃaŋa βusa aβilaŋa kila βise namwe xumuda fulani ne aβasa ɵmulai/?

SP: Yaani akilao yani nga sai alibusa bulai nga chola busa chisa Fulani yani salikho nie ta.

/jaani akilaɵjani ŋa sai aliβusa βulai ŋa tʃɵla βusa tʃisa Fulani jani salixɵ nie ta/.

I: He keeps on changing not all the time…

D: Okey and then the cough?

I: Ne khukholola?

/ne xuxɵlɵla/?

48

D: Productive?

I: (*the interpreter is silent)*

D: He is having metemesis?

I: Explain (*the interpreter requests for an explanation of the terminology)*

D: Does he have metemesis? Is the cough…does it have any blood stains?

I: Nakholola kamakhaso ako kabechanga khomo nende kamafuki?

/naxɵlɵla kamaxasɵ akɵ kaβetʃaŋa xɵmɵ nende kamafuki/?

SP: (nodding) mmm kimikhaso busa

(nodding) /mmm kimixasɵ βusa/

I: It is just the normal… (*the doctor interrupts the interpreter)*

D: Diarrhoea?

I: Ayara namwe seayara ta?

/ajara namwe seajara ta/?

SP: Ayarakho ne lundi nalilekho sindu lundi achasa achoo sa kawaida lakini acha busa buli khusa mala aba se kalile ta

/ajaraxɵ ne lundi nalilexɵ sindu atʃasa atʃɵɵ sa kawaida lakini atʃa βusa βuli xusa mala aβa se kalile ta/

I: Continous diarrhea even minus feeding.

D: So, the baby has diarrhea?

49

D: Any episodes of feats? Any episode of feats? Is the baby feating?

I: Omwana aliasa bulai namwe?

/ɵmwana aliasa βulai namwe/?

SP: Khulia alia sa bulai lakini...

/xulia alia sa βulai lakini/

I: He is just feeding well but…

D: Is the baby convulsing? Any episodes of convulsions?

I: Omwana kesindukha sindukhakho?

/ɵmwana kesinduxa sinduxaxɵ/

SP: Yee

/jee/

I: He has convulsions.

50

SP: Omusecha yuno yesi mala khumbolelakho ta! Yani koo eeh basecha bosi bakhakhumale

/ɵŋusetʃa junɵ jesi mala xumbɵlelaxɵ ta! jani kɵɵ eeh βasetʃa βɵsi βaxaxuŋal

I: She is complaining that the husband has not told her anything.

51

D: Yes, welcome, how can we help you?

I: Khukhuyetakho khurie?

/xuxujetaxɵ xurie/?

SP: Ese takitare chisuku chibili chibirire chino neninyala mbulila buchuni

/ese takitare ʧʃisuku ʧʃiβili ʧʃiβirire ʧʃinɵ neniɲala mbulila βuʧʃuni/

I: Pain on micturation

D: For how long

I: Chisuku… two days

/ʧʃisuku/...two days

52

SP: *Buchafu burura oli kamaira nekhenyala ta buli nga nenja khukhwinyala kimindu kirura* emubili *eyi kimisiro mala oli miwanga.*

/βuʧʃafu βurura ɵli kamaira nexeɲala ta βuli ŋa nenɟa xuxwiɲala kimindu kirura emuβili eji kimisiro mala ɵli miwaŋa./

I: Some thick whitish discharge from the body.

53

D: Yes, so do you think you have infected your partner?

I: No para waambisie mama woo engo?

/nɵ para waambisie mama wɵɵ eŋɵ/

54

SP: Omwana ata omwana nga nali seayetangakho omwana ta.

/ɵmwana ata ɵmwana ŋa nali seajetaŋaxɵ ɵmwana ta/

I: She is complaining again that a… after giving birth to that baby the husband does not even help that family.

55

SP: Kumubili kubila busa kwosi lakini bikele bianyirire busa chi!

/kumuβili kuβila βusa kwɵsi lakini βikele βiaɲilire βusa tʃi/

56

SP: Likoloba nakanane nende papa womwana omwana alianjaa. Kabele nende mama okundi sasa ange se nabele khenja khulola omwana wefwe wesikhana mutinga babele bamurumile chabele saa mocha enge nachile abele akhaminamina lusimu nge nachile ne kandila ariri enyuma, abele nafwarire e t-shirt ya pinki ne kandila ariari enyuma *nekakhhupa luyi nekakhupa nende libale*.

/likɵlɵβa nakanane nende papa wɵmwana ɵmwana alianɟaa. kaβele nende mama ɵkundi sasa eŋe se naβele xenɟa xulɵla ɵmwana wefwe wesixana mutiŋa βaβele βamurumile tʃaβele saa mɵtʃa eŋe natʃile aβele axaminamina lusimu ŋe natʃile ne kandila ariri eɲuma, aβele nafwarire e tʃat ja piŋk ne kandila ariari eɲuma nekaxupa luji nekaxupa nende liβale/

I: She was slapped by a person known to her who also used a stone to bruise her forehead.

57

SP: Omwana akholola lukali

/ɵmwana axɵlɵla lukali/

I: He is coughing

SP: Kumubili kubila sana

/kumuβili kuβila sana/

I: He has fever

58

SP: Kuchuna busa kuri ne kwikha busa kurikuri kutila busa paka mumukongo muno.

/kutʃuna βusa kuri ne kwixa βusa kurikuri kutila βusa paka mumukɵŋɵ munɵ/

I: Too much sweating and severe headache that attacks even the back.

59

D*:* How old is Owen?

I: Owen ali ne kimiaka kinga?

/ɵwen ali ne kimiaka kiŋka/

…

SP: Three and a half, this is your firstborn baby?

I: Wakwanza nie owoo?

/wakwanza nie ɵwɵɵ/ (The first one is yours?)

60

D: Ok thank you from my assessment, you have all the cardinal signs of Covid-19 so it will be important for us to take a sample for testing Covid-19

I: Nono khubirira mumakhua niko wakhalomaloma, onyala khuba nende bulwale bwa kofiti nono balikho bacha khubukula e sampo ye likhaso lwoo bache bapime lakini khumuda kukhwanjila sai khuendelea paka nga kamachibu ne karura sakhocha khukhwikhala ne babandu ta olaba wong'ene

/nɵnɵ xuβirira mumaxua nikɵ waxalɵmalɵma, ɵŋala xuβa nende βulwale βwa kɵfiti nɵnɵ βalixɵ βatʃa xuβukula e sampɵ je lixasɵ lwɵ βatʃe βapime lakini xumuda kuxwanɟila sai xuendelea paka ŋa kamatʃiβu ne karura saxotʃa xuxwixala ne βaβandɔ ʃta ɵlaβa wɵŋene/

61

SP: Takitari ndwala, khukhwinyala buchuni

/takitari ndwala, xuxwiŋala βutʃuni/

…

I: Cha mulapu khuli khwekesia nieli

/tʃa mulapu xuli xwekesia nieli/

…

D: Now your results are out. There are some bacteria and viruses in your body.

I: Bali kamachibu karurile, kokesia kali kumubili kwoo kulimo nende bibindu bibi bikhenyekhana tawe.

/βali kamatʃiβu karurile, kɵkesia kali kumuβili kɵɵ kulimɵ nende βiβindu βiβi βixeŋexana tawe/

…

D: I will give you medication but make sure your partner is treated.

I: Yee nende ehali yoo ye buwale bwa maniafu

/jee nende ehali jɵɵ je βuwale βwa maniafu/

62

D: Now what we can do is to refer you to the labolatory.

I: Bali nisio khabakhola khebakhuruma mulapu bacheke kamenyi koo.

/βali nisiɵ xaβaxɵla xeβaxuruma mulapu βatʃeke kameŋi kɵɵ/

63

D: You will go to the pharmacy to take the medicine then after medication you will go to the police to be given a P3 form to bring for me to fill.

I: Olacha sia famasi obukule kamalesi mala newakhamala busilikho oche paka sia polisi bakhue epithiri fomu wiche nenayo anano taktari bakhwichusilie, alafu nio baime omundu oyo bamutile.

/ɵlatʃa sia famasi ɵβukule kamalesi mala newaxamala βusilixɵ ɵtʃe paka sia pɵlisi βaxue epithiri fomu nenajɵ ananɵ taktari βaxitʃusilie, alafu niɵ βaime ɵmundu ɵjɵ βamutile/

64

D: Ok what's your complain, *what brings you here today?*

I: Sina sikhurerire mwosibito luno?

/sina sixurerire mwɵsiβitɵ lunɵ/

65

D: When you get infected with a UTI, there are chances you can be infected with the H.I.V Virus.

I: Taktare alikhoaloma ali nonyola bulwale bwa chingonelo buno oli raisi sana khunyola bulwale bwa maniafu. Ni sio sikila nakhakhupima biosi.

/taktare alixɵalɵma ali nɵŋɵla βulwale βwa tʃĩŋɵnelɵ βunɵ ɵli raisi sana xuŋɵla βulwale βwa maniafu ni siɵ sikila naxaxupima βiɵsi/

66

D: Ok, so your intention of coming to hospital is just to get medication or you have other plans after being treated?

I: Nono khukhwicha khwoo mwosibito wenya bakhusilikhe busa nochengo namwe olikho nende e plani ekindi nende omundu wakhupa?

/nɵnɵ xuxwitʃa xwɵɵ mwɵsiβitɵ weŋa βaxusilixe βusa nɵtʃeŋɵ namwe ɵlixɵ nende e plani ekindi nende ɵmundu waxupa/?

SP: Nachile mupolisi namustaka bambelesia OB namba

/natʃĩle mupɵlisi namustaka βamβelesia ob namba/

I: She went to the police station then she was given an OB number so she is planning to take legal action.

67

SP: Mala elarera bulomani

/mala elarera βulɵmani/

I: He is saying it will bring quarrels in the home.

D: That's the only way because if we do not treat your partner the sickness will re-occur.

I: Bali eino niyo engila ndala busa nio khunyala khwakhuyeta sikila mama khwalekha khumusilikha aba mulaba naye ne akhua bulwale lundi.

/βali einɵ nijɵ eŋila ndala βusa niɵ xuŋala xwaxujeta sikila mama xwalexa xumusilixa aβa mulaβa naje ne axua βulwale lundi/.

D: So take all the drugs as prescribed and come back again after one week for retesting

I: Bukula kamalesi kano *oche omile* bulai nga bakhuelesilie mala lichuma lilala ne liakhawa wiche bakhu chekekho lundi babone kabali waonile.

/βukula kamalesi kanɵ ɵtʃe ɵmile βulai ŋa βaxuelesie mala litʃuma lilala ne liaxawa witʃe βaxu tʃekexɵ lundi βaβɵne kaβali waɵnile/

68

D: A small prick

I: Baunakho busa atiti babukule kamafuki bapiime

/βaunaxɵ βusa atiti βaβukule kamafuki βapiime/

D: You are going to wait from outside

I: olacha khulindila kamachibu anje

/ɵlatʃa xulindila kamatʃiβu anɟe/

69

D: So, you will go to the pharmarcy to take the medicine

I: Bali olukhucha *mufamasi* obukule kamalesi. No bonakho eshida yosi yosi ne wicha

/βali ɵluxutʃa mufamasi ɵβukule kamalesi nɵ βɵnaxɵ eshida jɵsi jɵsi ne witʃa/

70

SP: Wabone ekholola mala lundi nekholola ndio yani muchimbafu muno yani kamachukhuru kano mbulila busa bubibusana buchuna sana, lundi kimiuya kiola abundu kienya khukhwima bise bilala.

/waβɵne exɵlɵla mala lundi nexɵlɵla ndiɵ jani mutʃimβafu munɵ jani kamatʃuxu kanɵ mβulila βusa βuβiβusana βutʃuna sana, lundi kimiuja kiɵla aβundu kieɲa xuxwima βise βilala/.

I: He has continous coughing with pains in the lower abdomen

71

I: Oli buchafu burura emwalo chana?

/Ɵli βutʃafu βurura emwalɵ tʃana/?

SP: Buchafu burura oli kamaira nekhenyala ta bulinga nenja khukhwinyala kibindu kirura emubili eyi kimisiro mala oli miwanga.

/βutʃafu βurura ɵli kamaira nexeŋala ta βuliŋa nenɟa xuxwiŋala kiβindu kirura emuβili eji kimisirɵ mala ɵli miwaŋa/.

I: Some thick whitish discharge from the body.

D: Which part of the body?

I: Lubeka sina?

/luβuka sina/?

SP: Nio ninyalilei

/niɵ niŋalilei/

I: The private part.

72

D: Now your results are out. There are some bacteria and viruses in your body.

I: Bali kamachibu karurile, kokesia kali kumubili kwoo kulimo nende bibindu bibi bikhenyekhana tawe.

/βali kamatʃiβu karurile, kɵkesia kali kumuβili kwɵɵ kulimɵ nende βiβindu βiβi βixeŋexana tawe/.

73

SP: Wabone ekhololа mala lundi nekhololа ndio yani muchimbafu muno *yani kamachukhuru kano mbulila busa bubibusana buchuna sana, lundi kimiuya kiola abundu kienya khukhwima bise bilala.*

/waβɵne exɵlɵla mala lundi nexɵlɵla ndiɵ jani mutʃimβafu munɵ jani kamatʃuxu kanɵ mβulila βusa βuβiβusana βutʃuna sana lundi kimiuja kiɵla aβundu kieŋa xuxwima βise βilala/.

I: He has continous coughing with pains in the lower abdomen

74

D: She will take two times three for five days,

I: Olamila kabili chisafari chitaru khusuku: asubui sasapa nende ekoloba khusuku chitaru

/Ɵlamila kaβili tʃisafaritʃitaru xusuku: asuβui sasaβa nende ekɵlɵβa xusuku tʃitaru/

75

D: Any episodes of feats? Any episode of feats? Is the baby feating?

I: Omwana aliasa bulai namwe? (Is the baby feeding/eating well?

/Ɵmwana aliasa βulai namwe/?

SP: Khulia alia sa bulai lakini… (Eating he is just feeding well but?

/xulia alia sa βulai lakini/

I: He is just feeding well but…

D: Is the baby convulsing? Any episodes of convulsions?

I: Omwana kesindukha sindukhakho? (Does the baby get startled most of the time?)

/Ɵmwata kesinduxa sinduxaxɵ/

SP: Yee (yes)

/jee/ (yes)

I: He has convulsions.

D: So mummy let me see the baby first.

76

I: There is inchiness.

D: Where?

I: Wae, wiyakala wae?

/wae, wijakala wae/?

SP: Khumwena.

/xumwena/.

I: Just at the pubic symphysis

77

I: Yesterday the husband insisted that they wear a condom but she declined.

D: Was there unprotected sex yesterday?

I: Nono mwakholile busa pila ekondomu likoloba?

/nɵnɵ mwaxɵnile βusa pila ekɵndɵmu likɵlɵβa/?

SP: Ta senamuwele ta, namureba ndi kimiaka kino kiosi sai nio olome oli ekondomu? Kakhaya nesesi ndoba. Senamuwele ta. Sekhwakholilekho ta papa.

/ta senamuwele ta, namureβa ndi kimiaka kinə kiəsi sai niə ələme əli ekəndəmu? kaxaja nesesi ndəβa senamuwele ta. sexwaxəlilexə ta papa/.

I: She did not have any intercourse with the husband.

78

I: Bali sikila Chakopo kaba ne kamaira mumenyi, nekenyala kamaira kabamo…

/βali sikila ʧakəpə kaβa ne kamaira mumeŋi, nekeŋala kamaira kaβamə/

D: And you had intercourse with him

I: Mala mwaba nenaye

/mala mwaβa nenaje/

D: We have decided that you should also be treated

79

SP: Ese taktari chisuku chibili chino neninyala mbulila buchuni.

/ese taktari ʧisuku ʧiβili ʧinə neniŋala mβulila βuʧuni/.

I: Pain on micturation

SP: Ne nanja khukhwinyala mbulila oli mayira mala buchuni ne kamenyi karula

/ne nanja xuxwiŋala mβulila əli majura mala βuʧuni ne kameŋi karula/

I: A painful discharge before micturation.

80

SP: Lundi ndi nende khukhwiyakalakho atiti

/lundi ndi nende xuxwijakalaxə atiti/

I: There is itchiness.

D: Where?

I: Wae, wiyakala wae?

/wae, wijakala wae/?

SP: Khumwena.

/xumwena/.

I: Just at the pubic symphysis

81

D: When was her last period?

I: E period yoo emalilisi yaba lina?

/e periɵd jɵɵ emalilisi jaβa lina/?

SP: Emala muchuli.

/emala mutʃuli/

I: Khwenyanga esuku nio wanja. She is finishing tomorrow

/xweɲaŋa esuku niɵ wanɟa/. She is finishing tomorrow

82

D: But then try and make sure you do not expose as much as possible.

I: *Okhera mumbeo sana nende nio lufumbi luli sana ta, lundi orumikhile bibindu bibile buli khase. Lundi sai bise biakorona nobio wakhaba nofungile kamolu ofwale e masiki*

/ɵxera mumβeɵ sana nende niɵ lufumβi luli sana ta, lundi ɵrumixile βiβindu βiβile βuli xase. lundi sai βise βiakɵrɵna nɵβiɵ waxaβa nɵfuŋile kamɵlu ɵfwale e masiki/

SP: Mala bubechanga bulume nekafungane e masiki iyo khukhwikhala nayo.

/mala βuβetʃaŋa βulume nekafuŋane e masiki ijɵ xuxwixala najɵ/.

I: She is saying that it is difficult to wear a mask when experiencing the blockage

D: You better prevent than getting corona when you already have the allergy

I: Ne daktare alikho aloma ali buli bulai okhingilile khukhila oli nende e alachi mala lundu korona ekhutile.

/ne daktare alixɵ alɵma ali βuli βulai ɵxiŋilile xuxila ɵli nende e alatʃi mala lundi kɵrɵna exutile/

83

I: Complete loss of appetite over any food.

D: So, you are saying that you are anosemic?

I: Elaborate on that.

D: O yeah you said he has lost the sense of smell?

I: Watibisie bunyali bwe khuunyila?

/watiβisie βuŋali βwe xuuŋila/?

84

D: He says…? He is anosemic?

I: Yes he is anosmic.

D: Are you anorexic?

I: Elaborate on that.

D: Have you lost the sense, the desire to eat?

I: Watibisie ehamu ye khulia? Ye khulia siakhulia?

/watiβisie ehamu je xulia? Je xulia siaxulia/

D: Mmmm are you aphonic?

I: Eee elaborate on that.

85

D: Is he dysnic, is he disnic?

I: *silence*

D: Does he feel difficulty in breathing?

I: Obonanga bulume khuela?

/Θβənaŋa βulume xuela/

86

SP: Ne nanja khukhwinyala mbulila oli mayira mala buchuni ne kamenyi karula

I: A painful discharge before *micturation*.

D: Anything else a part from painful *micturation?*

I: Sina sisindi?

SP: Lundi ndi nende khukhwiyakalakho atiti

I: There is inchiness.

D: Where?

I: Wae, wiyakala wae?

SP: Khumwena.

I: just at the *pubic symphysis*

D: Yes so do you think you have infected your partner?

I: wakonilekho nende mama newamile khukona nende niowanyolile mutauni?

SP: taktari sekhubea ta nge namayo busa nacha mala nabane omukhae wase.

I: without lying, after lying with the lady he went and immediately slept with his wife the very day.

D: But you are alone, where is she?

I: Ne sewechile nenaye ta, aliwae?

SP: Ese nise omulwale nie sembonekho ne kelocha ta.

I: He is the one who is sick he has not heard the wife complaining of the same symptoms.

D: You see, with your biological reproductive system is different from the female, the male and the female are different.

87

D: Now your results are out. There are some bacteria and viruses in your body.

I: bali kamachibu karurile, kokesia kali kumubili kwoo kulimo nende bibindu bibi bikhenyekhana tawe.

D: I will give you medication but make sure your partner is treated.

I: Lakini nosima okhurererekho mama yesi bamusilikhe sinkila nga wabele naye…

SP: Nono ndacha ndiena khubolela omukhae wase? Mbandikilekho khakhandu muyilile.

I: He is requesting you to write a note so that he takes to the wife so that she can also come for treatment/

D: ok. So you send your partner with this card to the hospital then we shall start from there.

I: olamua ecadi nio taktari akhoakhua yino keche nayo mala khwanjile abwenao

SP: Mala elarera bulomani

I: he is saying it will bring quarrels in the home.

D: that's the only way because if we do not treat your partner the sickness will re-occur.

Bali eino niyo engila ndala busa nio khunyala khwakhuyeta sikila mama khwalwkha khumusilikha aba mulaba naye ne akhua bulwale lundi.

SP: Ndakhaka mubolele muwe ekadi yino nekenya keche namwe alekhe

I: He says he is going to tell his wife to come.

D: so take all the drugs as prescribed and come back again after one week for retesting

I: Bukula kamalesi kano oche omile bulai nga bakhuelesilie mala lichuma lilala ne liakhawa wiche bakhu chekekho lundi babone kabali waonile.

88

SP: Omusecha yuno yesi mala khumbolelakho ta! Yani koo eeh basecha bosi bakhakhumale

I: she is complaining that the husband has not told her anything.

D: Ok so when we saw the results we decided that you also should be treated.

I: Bali nga babone akenako babona bali…

SP: Eeeh nono aba kambambisie? TENSE

I: is she likely to be infected

D: Most likely

I: Kanyalikhara?

SP: Mala papa Deriki nemukania ndi yikhala asi sebaulilanga ta nono bona, aaa!

I: She is complaining that the husband is always out and now he has brought her the disease.

D: Now what we can do is to refer you to the labolatory.

I: Bali nisio khabakhola khebakhuruma mulapu bacheke kamenyi koo.

SP: Kang'ali kang'ali.

89

SP: mbulia burafu ne kimiira kirura nio kamenyi kalondakho

I: He feels pain and experiences a discharge before urinating.

D: A discharge? What kind of discharge?

I: oli buchafu burura emwalo chana?

SP: Buchafu burura oli kamaira nekhenyala ta bulinga nenja khukhwinyala kibindu kirura emubili eyi kimisiro mala oli miwanga.

I: Some thick whitish discharge from the body.

D: which part of the body?

I: lubeka sina?

SP: Nio ninyalilei

I: The private part

90

SP: Kamenyi?

I: Yee nende ehali yoo ye buwale bwa maniafu

SP: Sinasikila bapime bwa maniafu?

I: He is asking why you are testing H.I.V.

D: When you get infected with a UTI, there are chances you can be infected with the H.I.V Virus.

I: Taktare alikhoaloma ali nonyola bulwale bwa chingonelo buno oli raisi sana khunyola bulwale bwa maniafu. Ni sio sikila nakhakhupima biosi.

SP: Tawe khapime buchunwe bukhilile

91

I: nono khukhwicha khwoo mwosibito wenya bakhusilikhe busa nochengo namwe olikho nende e plani ekindi nende omundu wakhupa?

SP: Nachile mupolisi namustaka bambelesia OB namba

I: she went to the police station then she was given an OB number sonshe is planning to take legal action.

D: so they told you that you have to get treatment first?

I: Bakhubolele bali onyole busilikhi nio?

92

D: Okey fine so you will go and take the treatment, the drugs from the pharmacy and after being dispensed, you will take this card back to the police station for processing, they will give you a P3 form then you bring it back here for filling.

I: Olacha sia pharmacy obukule kamalesi mala newakhamala busilikho oche paka sia police bakhue e P3 form nenayo anano taktari bakhwichusilie, alafu nio baime omundu oyo bamutile.

D: you will pay 1500 shillings to fill the P3 form.

I: olarumikhila chisilingi eelefu ndala nende mia tano khukhwichusia e P3 eyeyo

D: fine? Do you have any question?

I: olikho nende lireba lilindi? Khudaktari?

SP: Omwana ata omwana nga nail seayetangakho omwana ta.

I: She is complaing again that a… after giving birth to that baby the husband does not even help that family.

D: mmmm so that is very important that you seek the services of the children's department that they can compel the alleged perpetrator to give support to the baby through the children's department.

I: Likhua elio lia maana sana ubukule atua ekindi oyile omusakhulu oyo muidhara ye babana alafu babenabo nibo bali ne kamani ke khulasimisia papa wo mwana a yete mahitachi komwana waulile?

D: Fine you can go and take the drugs from the pharmacy room namba… fine

I: onyala wacha nono wabukula kamalesi sia pharmacy.

93

SP: Akholola alafu kamamila karura kamakali. Alafu khukhwola likoloba chimoni chino chilila kamasika kamakali ouka oli bamupile.

I: she is coughing with a running nose.

SP: Kumubili kwosi kubila busa pye pye!

I: she also has fever

SP: Kumubili kubila busa kwosi lakini bikele bianyirire busa chi!

I: the whole body is hot but downwards it is cold

94

SP: Eee malaria

D: So we are going to test malaria for malarial parasites and also since it has the same presentation like someone who has typhoid, so we are going to do the widal test also,

I: Balikho bacha khupima malaria lundi bapimekho birusi bia malaria mala lundi bapimekho typhoid sikila bwosi bwicha nende chisaini chindala chifwanana.

SP: Eee orio papa khuchesukuli buchunwe obwo bukali'

I: She is grateful for you going to school.

95

I: Mai upile omukhana namwe a biimbile sina.

SP: Tawe bulwale, ali kumurwe, enda nende anano.

I: Headache, abdominal pain and throat pain

SP: Kabelekho nende typhoid bamusilikha lakini senabonekho change tawe

I: She was treated for typhoid but there is no change.

D: when?

I: Bamusilikhe lina, wakati sina, chabirire chisuku chinga?

SP: Liwiki lwawele

I: she was treated for typhoid a week ago but there is no change.

96

SP: Se alikhonende appetite ta

I: Loss of appetite

D: For how long?

I: Chisuku chinga?

SP: Khukhwama chuma mosi.

I: three days. From Saturday that's three days

D: when was her last period?

I: E period yoo emalilisi yaba lina?

SP: Emala muchuli.

I: kwenyanga esuku nio wanja. She is finishing tomorrow

D: Vomiting? Are you vomiting? How many times today?

I: Olikhorusia? Chisafari chinga?

SP: Yee ndusisie khabili luno.

I: History of vomiting two episodes.

D: diarhorrea?

I: khuyara?

SP: Echarirekho busa lulala

97

SP: Nono ese ndikho nende eshida, embeo ne yicha ne kamolu kafungana

I: During coold she experiences na…blockage of the nostrils

SP: Kafungana mpaka nekhilwa khulomaloma alafu chisa enchindi nekakhola oli kafungukha ne ka..ka… kamamila kanja khukwikha oli kamechi kamakali kapisa.

I: Wakhatunga lukali aba ndalomandisi? The moment she experience nasal blockage…olomile olisina?

SP: Ndikhilwa khulomaloma alafu kamolu kanja khurusia kamamila kamakali oli kamechi

I: During nasal blockage she has history of inability to talk, the moment the nasal unblocks she experiences a running nose which is watery.

SP: Alafu chisa echindi sifuba nasio sichuna.

I: Sometimes chest pain

98

SP: Sinyala siachuna busa nembulila sindu oli omundu ne akhuunile kumubano.

I: The pain is Shrp in nature like that one for the knife.

SP: Ne chisa echindi mbulila khukhwiyakala nyala naulila khukhwiyakala emumilo eno nanwe ata mumaru namwe chimoni.

I: she also has history of inchness around the throat eyes and even ears.

D: She has had the problem for how long.

I: wabele neshida khumuda sina?

SP: Siabelekho sise silei busa kunyala khucha kimiaka ata kibili

I: Almost two years.

D: I think that is an allergy, any history of allergy in the family?

I: mulikho nende allergy mufamili yenywe?

I: Allergy nono nisio sina?

I: Taktari alikho aloma ali oli nende allergy ye mbeo

SP: Allergy nisio si/

I: what is allergy

D: Allergy is when somebody reacts to something in the environment like cold, dust or food, when exposed to that environmemt the body developes some changes.

I: Bali kumubili kwoo kwaria embeo, sekwenya embeo eyeyo ta , noluli lufumbi nende embeo eyeyo nono yekasia kamolu ili okhilwa khuela okhwokhwo.

99

D: How can I help you?

I: Bali daktari akhuyeta arie?

D: And tender, is it tender?

Silence

D: is ti tender? Mmis it tender, tender, is it tender?

I: Tender? What is tender?

D: Tender in medicine refers to pain, is it painful?

I: Bali achuna?

SP: yee

I: Paka sai osiumia, burafu busilio?

SP: Burafu busilio ne kamalesi niko ndamilanga nekhamilile ta ne kwanja khuchuna

I: She still feels pain when not on drugs

D: After the assault, what did you do? You went for treatment somewhere?

I: Nga nebakhuumisia wacha busilikhi waena?

SP: Fastiaidi nanyola mumisheni

I: Misheni si?

SP: chebukaka misheni ne daktari bakhuruma khucha emasare wa masinde

I: At chebukaka mission then at Masinde's place

D: so you were refered to Masinde's place? At Masinde's place what did you do?

I: nga newola wa masinde wakholakho sina?

SP: Bambila mu xray.

D: And then?

I: Mala?

SP: Ngabamala khukhupa xray ne becha mukari banhc khukhusilikha. Baloma bali sikumba abele siekhikhile siarurile m nafasi.

I: the xray showed a dislocation.

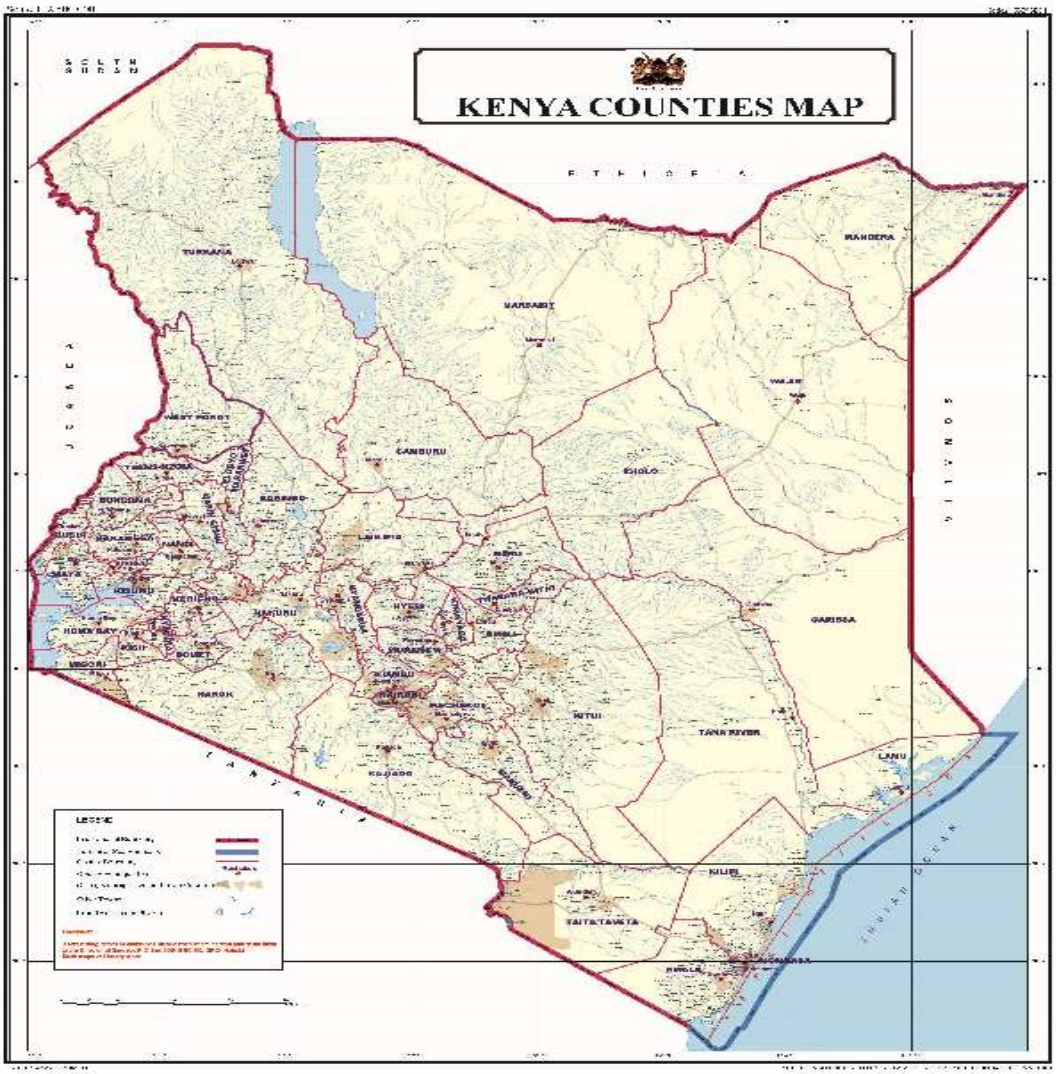
D: Dislocation, mmm were yo given any medicants?

I: Bakhuakho kamalesi kakandi?

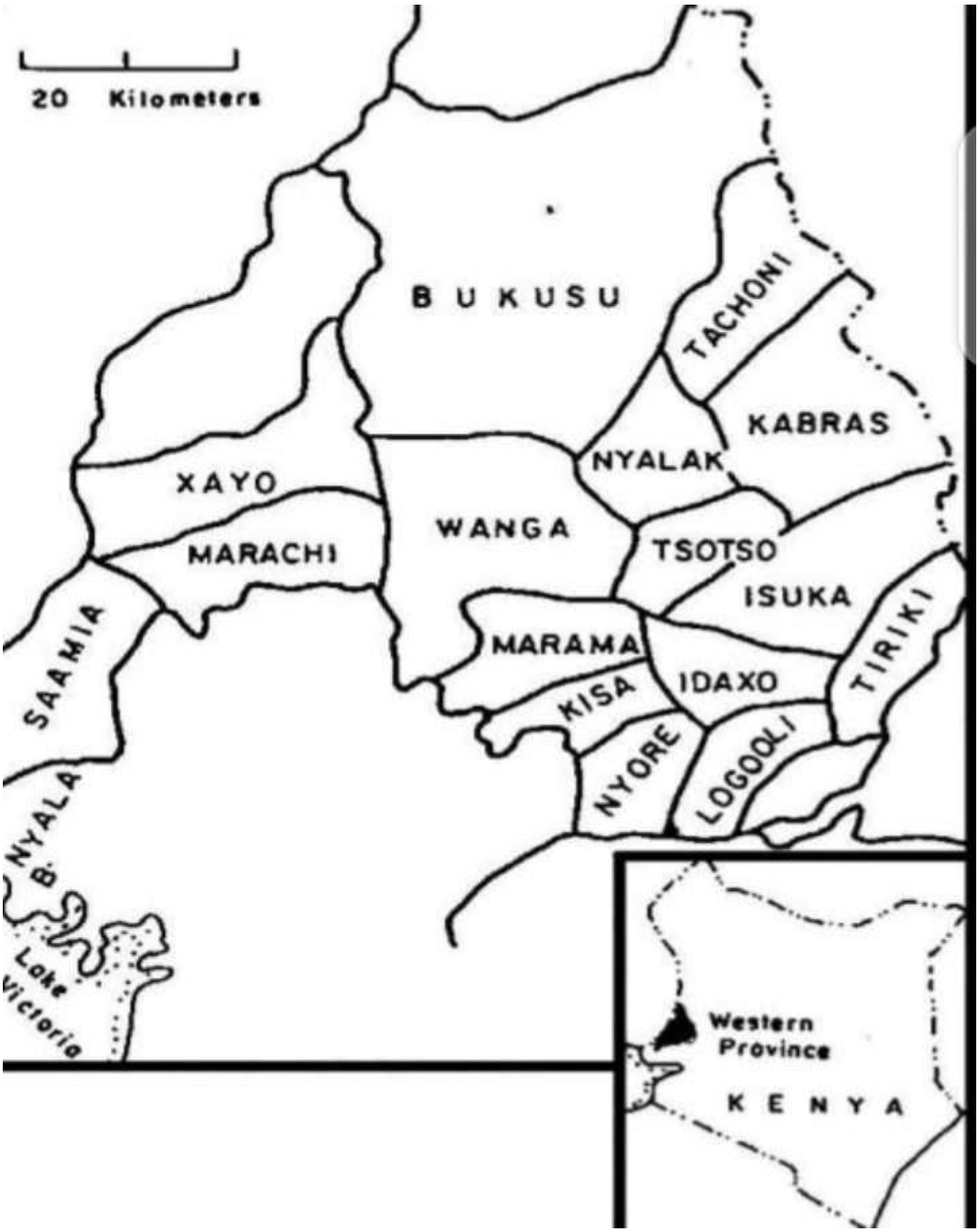
SP: Bamba prufen ya 400mg flachi nende andipaitic

I: She was given extra medicants.

APPENDIX XVII: Map of Kenya Showing the Counties



APPENDIX XVIII: Map Extract of the Luhya Languages



APPENDIX XIX: The International Phonetic Alphabet