### PEOPLE'S DEMOCRATIC REPUBLIC OF ALGERIA

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# The Impact of Language Barriers in Healthcare Services during Covid -19 Pandemic :The Case of Dr.Benzerdjeb Hospital of Ain Temouchent

An Extended Essay Submitted in Partial Fulfillment of the Requirement for a

Master's Degree in Didactics

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# **Dedications**

I dedicate this work to:

my beloved mother for her support, sacrifices and prayers

my lovely sisters Hamida and Ibtissem.

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### **Abstract**

The present study investigates the impact of language communication barriers in Algerian healthcare services in Dr Benzerdjeb hospital of Ain Temouchent during Covid-19 pandemic. It focuses on investigating the causes and effects of such barriers on doctor patient interactions. This research further aims at discovering the communication barriers that may lead to poor communication. It also seeks to provide Comprehensive remedies to address problems of such complexity. The present research is based on a mixed method approach for data collection and analysis, with reliance on the two data gathering instruments namely the questionnaire that was apportioned to patients as well as the interview that was performed to doctors. Ultimately, the results gathered from the study have revealed that language differences, medical jargon, cultural differences and the use of French language contribute in creating barriers in Algerian healthcare services.

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# **List of and Acronyms**

**AA**: Algerian Arabic

**CS**: Code Switching

# **General Introduction**

### **General Introduction**

Algerian health care system claims to be one of the best health systems in the Maghreb and Africa in terms of free medicine, various medical disciplines, availability of medical gear and delivering treatment to the farthest village. Despite this, it was subjected to many criticisms, the most important of which is mismanagement, medical errors, poor services and lack of good care for patients, as about half a million Algerians travel abroad every year to receive appropriate treatment. Furthermore, citizens have different behaviour between the public sector and the private sector, as the patient's companions assault workers in the public sector, despite the free medical care that is provided to them, but they behave respectfully when it comes to the private sector.

The COVID 19 pandemic did not lead to the collapse of the health system in Algeria but it revealed its great fragility through the strategies adopted between the public sector and the private health system. It was threatening to undermine the social contract that binds the state to society around the principle of free health for all, which was approved in 1974. This is a more unfair situation than usual especially since it is the public health teams that will mobilize and confront the epidemic. The "white army" working in the public sector has clearly demonstrated their humanity and professionalism since the beginning of the pandemic in Algeria.

Perceiving that communication is a fundamental prerequisite for the improvement of a connection between two people, it turns out to be extremely evident that any individual who visits a doctor must communicate clearly and openly. It is therefore the doctors' obligation to comprehend their communication habits. This is the foundation of a successful connection between doctors and patients.

Each patient is a remarkable individual with a particular arrangement of qualities, valuable encounters and conditions that have added to the patient's all out being and character. Despite the fact that few patients might have a similar clinical issue or condition, each individual is made up of a body, psyche, and soul, and is qualified to have the physical and profound necessities tended to. Giving clarifications, recommendations, and instruction to the patient and the patient's family, and advising also comforting the patient and family requires viable communication between the clinician, the patient, and the patient's family. Effective communication is communication that is grasped by the two members, good communication does not occur in the absence of comprehension; when effective communication is missing ,the arrangement of medical services finishes or continues with mistakes, low quality, and dangers to patient security.

In this study we aim to explore Doctors-Patients relationship at Dr Benzardjeb Hospital of Ain-Temouchent and language used during the therapeutic consultation .We would like also to examine the communication barriers and the extent to which it affects relation between patient and doctors on the health of citizens.

On this matter, the scope of research lies to answer the following research questions:

- 1- What language do doctors use to communicate with their patients during the therapeutic interview?
- 2- What are the causes of language barriers in the health sector?
- 3- What is the effect of language barriers in communication between patients and doctors.

The presumably answers are structured in the following hypotheses:

- The Algerian dialect or the Algerian Arabic dialect is the main language of common communication during the medical examination, likewise French is significantly used.
- 2. The use of French language, medical terminology and blurred prescription are obstacles leading to barriers language.
- 3. Communication barriers in healthcare can hinder patient health outcomes and satisfaction.

This research is conducted into three chapters:

The first chapter is the literature review of the work which presents some sociolinguistic concepts besides the relationship between doctors and patients. The second chapter exposes the methodological part. It describes the methodology, the instruments used etc. The last chapter is dedicated to analyzing the data and discussing the results. It also involves suggestions and recommendations.

# ChapterOne Communication In Doctor Patient Relationship

### 1.1 Introduction

Communication is the basis for sharing information between people to secure that everything is understood. We cannot live without communication, there is no way to express perceptions and notions because you need an effective communication in order to fulfill your mission. The current chapter includes communication's types and levels. It also points out some sociolinguistics concepts and the last part will be conducted for doctor patient interactions.

### 1.2 Language and Communication

Language is an embedded part of human behavior and the fundamental method of interaction between people. It is a system of communication used by particular groups of people within the particular society. According to Sapir

Language is a guide to social reality ... it powerfully conditions all our thinking about social problems and processes... The 'real world' is to a large extent unconsciously built up on the language habits of the group. No two languages are ever sufficiently similar to be considered as representing the same social reality. The world in which different societies live are distinct worlds, not merely the same world with different labels attached.

(Sapir 1949: 162)

Moreover, Sapir (1921) defines language as: "Language is a purely human and a non-instinctive method of communicating ideas, emotions, and desires by means of voluntarily produced symbols". (p.7)

According to Sapir Language method is a non-instinctive method of communicating ideas and emotions because we don't analyze much before communicating, there are no

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trigger for us to talk in our native language, and based on his definition humans are the only creature that understand the notion of language.

Communication is the process of transmitting information from one person to another. The goal of communication is to comprehend information. Communication promotes in better understanding individuals by eliminating misunderstandings and enhancing clarity of ideas and speech. Sperber and Wilson define communication as:

Communication is a process involving two information-processing devices. One device modifies the physical environment of the other. As a result, the second device constructs representations similar to representations already stored in the first device. oral communication for example is a modification by the speaker of the hearer's acoustic environment, as a result of which the learner entertains thoughts similar to the speaker's own.

(Sperber and Wilson 1987:697)

According the Oxford Advanced Learner's Dictionary of Current English (2004) communication is the act of expressing ideas and feelings or of giving people information. Misunderstanding is the fundamental source of conflict and discomfort, which may be eliminated by effective communication skills. The eradication of misunderstanding allows the management and his subordinates to understand one other and establish strong working relationships.

The aim of good communication is to guide your target audience to the intended outcome. The purpose might be to enlighten people or help them grasp a message, but it could also be to persuade or encourage them to act. Communication can be written or spoken, formal or informal, interpersonal, intrapersonal, or intra-organizational.

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### 1.3 Levels of Communication

Communication levels are classified into three classes: intrapersonal communication and interpersonal communication.

### 1.3.1Intrapersonal Communication

Intrapersonal communication contributes in thinking, arranging, evaluating and analyzing ideas and concepts. Furthermore, it allows the individuals to create new techniques and resolutions to various obstacles. Intrapersonal communication can be defined as communication with one's self, and that may include self-talk, acts of imagination and visualization, and even recall and memory (McLean, 2005). Some scholars describe it as speaking aloud to oneself.

Intrapersonal communication is typically described as one's self –opinion as both a facilitator of intrapersonal processes and result of interpersonal communication. Other scholars claim that intrapersonal communication occurs as we engage in all other levels of communication. The focal point of intrapersonal correspondence is on processes happening inside the individual, it needs not be restricted to communication occasions comprising of just one individual.

### 1.3.2 Interpersonal Communication

Interpersonal communication includes cooperation between two people, or a little gathering, on a coordinated premise. The benefit of connecting with less individuals make it workable for individuals to open up and talk about issues to each other's comfort. The chance of trade of perspectives and feelings on the spot makes this sort of communication entirely important to an association Staff gathering, briefings about work to be done, input and client relations are instances of this kind of communication.

As a matter of fact Simon et al(2018:222) claim thatInterpersonal communication meets our basic needs as humans for security in our social bonds, health, and careers. But we are not born with all the interpersonal communication skills we'll need in life.

### 1.4 Types of Communication

Communication types provide a map to the human beings to approach with each other in the planned manner. When a relation lacks this communication types, it fails to connect properly with the other side and achieve its intended goals. It is worth touching on verbal and non-verbal communication.

### 1.4.1Verbal Communication

Verbal communication is the successful presentation of your ideas in a verbal manner. Verbal communication is a kind of oral communication in which the information is sent through the expressed words. Moreover, Gupta (2021) states that:

when words are used as tools of interaction between two or more individuals, it is known as verbal communication. It can be oral or written...Some common forms of verbal communication are conversations, speeches, letters, newspapers, magazines, cassettes both audio and video, telephonic conversation etc. (p.03)

Verbal communication alludes to the usage of words to represent our thoughts to others. As a result, it encompasses both verbal and written communication. Regardless of the fact that most users lean toward verbal communication to simply depict spoken communication. The verbal element of communication alludes to the words that we pick as well as how they are heard and interpreted.

### 1.4.2 Non-verbal Communication

Nonverbal communication is a form of communication that is devoided of sound and is used to deliver our message. Simon, Grimes, and Roch (2018:85)state that: Nonverbal communication is the process of conveying a message without the use of words. It can include gestures and facial expressions, tone of voice, timing, posture and where you stand as you communicate. Moreover, Sooriya (2017:1) defines nonverbal communication as:

Nonverbal communication is the process of communication through sending and receiving wordless cues between people...nonverbal communication encompasses much more, such as use of voice, touch, distance, and physical environments/appearance.

Nonverbal communication comprises a range of physicalized nonverbal signals that express emotional states and reinforce verbal information. Nonverbal human communication includes diverse regions of the body and can be cognizant or unconscious on the communicator's portion.

### 1.5 Language Variation

Language variation has historically been concerned with sociolinguistics and dialectology. Accordingly, language variation alludes to a change in a certain form of language that is exclusive to a specific group or community. Hudson(1996:22) claims that a variety of language is "a set of linguistic items with similar distribution". Based on Hudson's definition language variation permits us to consider all the language of some multilingual speaker, or local area, as a single variation, because all the linguistic elements involved have a comparative social circulation. Moreover, Ferguson (1972: 30) defines variety as:

Any body of human speech patterns which is sufficiently homogeneous to be analyzed by available techniques of synchronic description and which has a sufficiently large repertory of elements and their arrangements or process with broad enough semantic scope to function in all normal contexts of communication.

Based on Ferguson's definition, some variations are a basic fact of linguistic life. Sapir(1921:147) claims that 'everyone knows that language is variable'. Therefore, Language variation focus on how language evolves in relation to several contextual elements which include social class, region, gender...ect

The investigation of language variation is an essential component of sociolinguistics, to the degree that it expects reference to social elements. Languages differ from one location to the next, from one social group to the next.

### 1.5.1Dialect

Dialect is viewed as a geographical variation of a language that is spoken in a specific region and differs from other geographical variations of the same language in some linguistic features.

Edward (2009) considers dialect as a variety of a language that differs from others along three dimensions: vocabulary, grammar and pronunciation. According to him a dialect is a variety linked to user. It encompasses differences in vocabulary ,grammar and sound variations (pronunciation) . Moreover, a dialect is defined by Chambers and Trudgillas:

A substandard, low status, often rustic form of a language, lacking in prestige. Dialects are often being thought as being some kind of erroneous deviation from the norm. An aberration of the 'proper' orstandard norm of language.

Chambers and Trudgill (1998:5)

Dialect is a variation of a certain language that is used by a specific speaker and is recognized by formal markers such as phonological, grammatical and morphological markers. Regional dialect and social dialect are both types of dialect.

### 1.5.2 Register

The term "register" relates to the degrees of formality of the utterance in language use. In a friendly discussion with friends, you will probably utilize colloquialisms, contractions, and unfinished sentences, this is an informal register. whereas a doctor in hospital relates to formal register. Based on the Dictionary of Linguistics and Phonetics, Crystal (1991: 295)notices register as "a variety of language defined according to its use in social situations, e.g. a register of scientific, religious, formal English."

Registers are typically distinguished purely by vocabulary distinctions; neither by the use of specific words nor by the use of terms from a specific perspective. This sort of variation depends on specialty of language use. Wardhaugh (2006) states that registers "are sets of language items associated with discrete occupational or social groups" (p.52). Registers are collections of vocabulary items related to particular professional and social bunches, such as, professor, Businessman, detective and journalist.

Register is the variety of language as per the utilization. It implies where the language is utilized for of communication for specific purposes. It relies whole upon the area of language utilized. It is additionally an element of the relative multitude of different parts of discourse context.

According to Halliday(1994) there are three variables (mode, field and tenor) that can be used to specify the context of situation in which language is used. They allow people to define the current context specifically and, as a result, replicate a portion of the language that is being utilized.

- ❖ Field of discourse: The field offer exercises that occur at the time of discourse. It is noticed as "the total event, in which the text is functioning, together with the purposive activity of the speaker or writer; it thus includes the subject-matter as one element in it" (Halliday 1994: 22).
- ❖ Mode of discourse:is interpreted through literary importance and through the linguistic frameworks of subject, as well as through decisions in cohesion. "the function of the text in the event, including therefore both the channel taken by the language spoken or written, extempore or prepared and its genre, or rhetorical mode, as narrative, didactic, persuasive, 'phatic communion' and so on" (Halliday 1994: 22).
- ❖ Tenor of discourse: portrays individuals that partake in an occasion as well as their connections and situations. "The tenor refers to the type of role interaction, the set of relevant social relations, permanent and temporary, among the participants involved" (Halliday 1994: 22).

### **1.5.3 Jargon**

Jargon is a special language used by specific groups of people to promote contact and provide a way of bonding, and keep strangers out. According to Perdhani et al, (2021), jargon can be used to prevent outsiders from knowing anything. A jargon is composed of specialized terms and normal manners of speaking that are involved

### CHAPTRE ONE: COMMUNICATION IN DOCTOR -PATIENT RELATIONSHIP

consistently to simplify connection with others in the field. Moreover, Fromkin et al. (2007) confirm that jargon is adopted by several professional and social groups in such an enlarged and unclear manner.

Medical jargon is defined as a second language used by healthcare practitioners to abbreviate and simplify connection. It is a method for doctors and specialists to communicate effectively without having to explain things from the ground up. There are many types of jargon such as medical, military and engineer jargon.

Here are some medical jargon used in medical sector

**Table1.1Original Medical Jargon and their Translation** 

Original term	Translated term
Hepatitis	Inflammation of the liver
Idiopathic	Unknown cause
Tachycardia	Fast heart rate
Echocardiogram	Heart ultrasound
Hypothermia	Too low body temperature
Biopsy	A small sample of tissue that's taken for testing
DCI	Disseminated intravascular coagulation
Hyperlipidemia	Excessive fat in the blood
Neonatologist	Doctor who specialises in the care of newborn babies

This table shows some medical jargon and their translations used in healthcare sector. It should be noted that those terms are not used outside of a medicine context.

### 1.6 Language Choice

Language choice is a choice of language that generally shows up in numerous speech communities. It is the utilization of one language in one context and another language in another condition relying upon the overall social setting. In this context Holmes and Wilsom (2017:13)state: "language choices convey information about the social relationships between people as well as about the topic of discussion".

Language choice is a choice of language cooperation that occurs in numerous discourse networks. It implies that when we are in the societies, David (2006) argues that language choice is triggered by factors such as social status, gender, educational attainment, ethnicity, age, occupation, speakers, topic, place, media and formality of the situation.

### 1.6.1 Code Switching

Code switching happens when a speaker switches between two or more languages. Furthermore, it can happen between dialects of the same language. Certain tactics are used by bilingual societies to increase the productivity and meaning of communication .CS is one of these strategies. In this context Sridhar (1996:56) declares:

When two or more languages exist in a community, speakers switch from one language to another. This phenomenon, known as code switching, has attracted a great deal of research attention in the last two decades.

Code switching is process of transition from one linguistic code to another within language or dialect, based on the social framework or conversational situation. The sociosemantic advantages of code switching incorporate association to a specific category of people . Hence , this phenomenon can be considered to be a method for giving a language

benefit rather than an obstacle to connection. Moreover, code switching permits a speaker to portray more complex mentalities and feelings by picking from a larger pool of words that is accessible to a bilingual individual. Also, it permits speakers to boost the effect of their discourse and use the second language in a more successful way. According to Gumperz (1982:59), code switching is: we the juxtaposition within the same speech exchange of passages belonging to different grammatical systems or subsystems were successful way. From the other side, Nilp (2006:1) defines code switching as follows:

Code switching is the practice of selecting or alternating linguistic elements so as to contextualize talk in interaction. This contextualization may relate to local discourse practices, such asturn selection, or various forms of bracketing, or it may make relevant information beyond the current exchange, including knowledge of society and diverse identities.

Code switching is also a valuable psychological technique. Thus, the attendance is more responsive to the material at the point when an individual employs a group's dialect or accent. According to Poplack (1980), code switching is classified into three categories

- ❖ Intra-sentential code switching: happens within a clause or a sentence, without any interferences, faltering, or stops to show a change . Usually, the speaker is unconscious of the alteration.
- ❖ Extra-Sentential or Tag Switching implies the inclusion of a tag from one language into an expression in another one .This is a frequent kind in intrasentential switches.
- ❖ Inter-sentential code switching:the language switch occurs at a clause or sentence boundaries. This kind is most widespread among bilingual speakers who seem to be fluent in both languages.

### 1.6.2 Code Mixing

Code mixing is one of the significant types of language choice which is more precise than code switching. code mixing is involving at least two language in the same sentence but one language more predominant, and it is tied to the social environment as a function of the code used. it might happen when the speaker and audience members comprehend more than two languages. Hudson (1999:53) defines code-mixing as "a kind of linguistic cocktail, a few words of one language, then a few words of the other, then back to the first for a few more words and so on". In code mixing the speakers borrow vocabulary from different languages, It usually takes place without a shift in subject and might affect several degrees of language such as morphology, lexical items and grammatical structures.

### 1.7 Communication Barriers

Communication barriers are elements that have an impact on the adequacy of the communication process. Furthermore it is anything that prevents one from receiving and analyzing instructions shown to another to express ideas or any other level of detail and data.

Communication barriers cause message misapprehensions between the transmitter and the receiver. Due to these hurdles, it becomes challenging to decipher the message accurately prompting a total disappointment of communication. In this context Zastrow (2001:130)notes that "a breakdown in the communication process may occur if the intended message was not encoded or decoded properly". Barriers might erupt at any phase during the communication process, diluting the message. Both the transmitter and the receiver should be aware of the communication barriers and take actions to solve them in

order to convey a succinct and clear message. There are several forms of barriers that prevent effective communication:

### 1.7.1 Language Barriers

Language is one of the principle barriers to the communication obstruction. It is crucial that all people associated in the communication ought to plainly comprehend the words used. Language barriers or semantic barriers emerge when individuals can't comprehend the language utilized in communication due to differences in linguistic abilities. These hurdles might appear During the discourse analysis.

Miscommunication occurs when technical jargon, various interpretations, unclarified assumptions and inaccurate translations are used throughout the discourse analysis. Inability to speak in a language that is known by both the sender and beneficiary is the biggest hindrance to good communications. The communication challenges faced by persons or groups that previously communicate in various languages, or even dialects in some situation.

### 1.7.2 Physical Barriers

One more arrangement of obstructions is brought about by your own physical appearance, your crowd, or the setting of the show. Physical barrier is the normal condition that go about as a hindrance in communication in sending message from sender to receiver. Time , distance, noise and information overflow are the main Causes of Physical Barrier.

a)Time and Distance: If a message is not delivered at the proper moment, the message won't have the impact that it ought to have, as the aim won't be met. This creates a

communication barrier. As a result, the message's timing should be precise. Similarly, as distance increases, so do the requirements and hurdles to communication. The greater the distance, the more technical channels are required.

**b) Noise**:Noise obstructs the message's path to the recipient and creates a physical communication barrier. There are several types of noise in the communication process, such as physical noiseand textual noise.

**Physical noise:** refers to disruptions caused by outside or background disturbances and the surroundings. This sort of noise happens in almost all forms of communication, including face-to-face and written.

**Written noise**: such as imprecise handwriting or typing is likewise seen as a physical barrier.

### c) Overflow of Information:

Communication fails when there is more information than the recipient can handle at any given time. Because the recipient does not have the ability to receive all of the information, he /she may miss some crucial parts or misinterpret the meaning of the entire communication. The message won't obtain the ideal result, leading communication to be ineffective and go about as a hindrance.So ,Work overload contribute to the creation of a physical communication barrier.

### 1.7.3 Interpersonal Barriers

Interpersonal barriers are ultimately what prevent us from connecting with one another and opening ourselves up. Surprisingly, this might be the most hardest region to edit. Certain individuals spend their entire lives struggling to rectify an unfortunate mental

self-image or a progression of well-established biases regarding their position on the planet. They are unable to develop true connections with others since they have too many incorrect perceptions that are impeding their progress.

Fortunately, communication is the solution. We learn about our genuine talents and limitations through interacting with others. This permits us to present our views in a simple and clear manner.

### 1.7.4 Psychological Barriers

Psychological barriers may occur as a consequence of an individual's own discomfort, such as sickness, poor vision, or hearing problems. The communication process is influenced by people's psychological and emotional elements. It is fundamental that both the transmitter and the receiver ought to be intellectually fit and sound mind while speaking with one another . Speech difficulties and anxiety are extremely difficult to control and have a negative impact on the communication process. It is vital for people speaking with one other to be emotionally mature.

In Psychological barriers, the receiver's psychological condition will impact how the communication is received. For instance, assuming somebody has private and personal troubles, they might be distracted with conquering their own anxieties and not as open to the message as they ought to be. Another example of a psychological barrier to communication is anger it might prompt critical outcomes that can't handle. By and large, individuals with low confidence might be less decisive and may find it difficult to communicate.

### 1.8 Doctor- Patient Relationship

The doctor patient relationship is a reinforcement of clinical care. Doctor patient interactions can have significant positive and negative impact on clinical care. The ultimate purpose of the physician-patient interaction is to enhance patient health outcomes and medical treatment.

In any therapeutic context, effective communication is the foundation of a strong doctor-patient relationship. Physicians discover that their sympathetic conversation is crucial to patients and may even be curative for some. A huge extent of this communication is non-verbal.

The significant parts of doctor -patient communication incorporates fostering a decent relational relationship, being an audience, and making patient centered the executives plans. Great and successful doctor—patient communication increases patients' faith in their physicians and their level of satisfaction, and it has an indirect influence on patients' health outcomes. Consequently, according to a clinical viewpoint, proficient communication is a portion of a system to guarantee that specialists are giving supreme treatment to their patients.

Effective communication enhances patient and doctor satisfaction, reduces medical errors, decreases patient complaints and medical negligence. "Medicine is an art whose magic and creative ability have long been recognized as residing in the interpersonal aspects of patient-physician relationship." (Ha, Longnecker, 2010, p.38).

Better communication can also lead to higher levels of doctor satisfaction in the form of fewer patient complaints, better work fulfillment, and lower levels of fatigue. In a workplace, the patient–physician relationship involves a complex psychological interaction

of fragility and trust. Doctor is trusted to deliver an established quality of medical treatment in his field of expertise. Doctor's commitments include informing the patient of the medical condition, supplying optimal therapy, and obtaining informed permission from the patient for clinical treatment or surgery. Good communication can assist reinstate the patient's confidence in doctors, which is essential for rehabilitation. Doctors must devote time and effort to enhance the quality of communication with their patients. Communication isn't really what we say, yet it is more about how we say and how the patient deciphers what we say.

### 1.8.1 COVID-19 Pandemic in Algeria

The COVID-19 crisis, also known as the coronavirus pandemic, is a catastrophic health pandemic first discovered in November 2019 and is a serious respiratory disease caused by SARS-CoV-2. The disease spread in Wuhan, then throughout China and other countries, including Algeria, The virus was proved to have spread to Algeria in February 2020. when the first case tested positive was reported. The wilaya of Blida recorded the first cases on the national territory with a growing number; it was the epicenter of the epidemic.

COVID-19 symptoms most commonly include fever, cough, aches and shortness of breath .COVID-19 can occur through close contact with infected people through infected secretions like respiratory secretions. all in all ,it occur if contaminated fluids reach the eyes, nose or mouth. Infected people are contagious and can spread the virus even if they do not show symptoms. COVID-19 vaccines was approved for use in numerous countries since December 2020. Thus, vaccination has been a substantive element in the cessation of COVID-19 epidemic.

### 1.8.2 Doctor-Patient Interaction during COVID-19

The recent viral pandemic has made enormous barriers to communication, not simply between doctors and patients. Obviously, hindrances to interaction with medication were set up before the outbreak of COVID-19.

There is no question that the utilization of individual defensive gear is vital to repulse the spread of contamination from patients to medical services laborers. Nonetheless, masks and other head coverings make it hard even to keep in touch with patients, not to mention compelling communication. The suit we're used to see in the operating room creates a gap between doctor and patient.

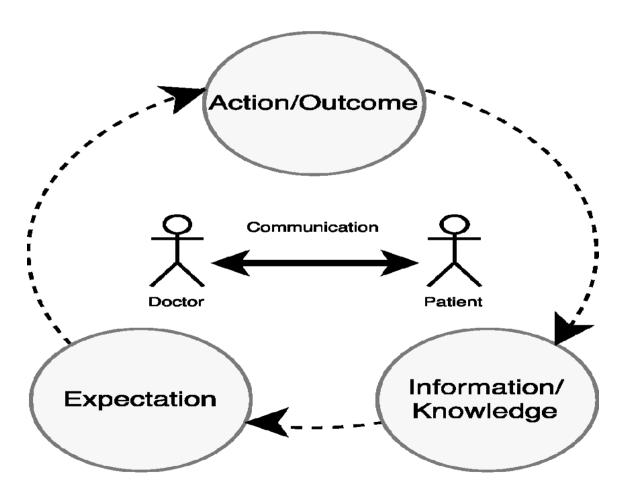


Figure 1.1 :Dynamic process model of trust (Beitat et al., 2013:81)

Figure 1.1 represent the dynamic process model of trust ,doctors and patients have to share information and knowledge through communication ,they have to render expectations in order to serve their the interests and develop the outcomes. The goal of this model is to build trust between doctor and patient.

Talking through all the headgear affects voice tone and it is often necessary to yell without holding back to convey the idea. In this context ,Pellegrini(2017) states that:

It is how we look at a patient. It is how we act with a patient. It is how we smile. It is how we listen. It is how we show empathy. It is how we show compassion. It is about delivering on a promise, even if a small one. It is about reaching out to the patients after they have left the hospital or the clinic in any way possible, and letting the patient know, without doing so overtly, that we care. (p.100)<sup>1</sup>

Accordingly, Pellegrini primary goal was to stimulates doctors to use different instruments of communication. Pitch of voice to convey proper feeling is made inconceivable by the tight-fitting masks. Contrastingly, Patients with different abilities who rely on various ways of communication like lip-reading, face enormous challenges like a patient with hearing hindrance. Practically all non-vocal prompts are crushed by defensive headgear. Masks cover the face, so you can't figure out if one is smiling or grimacing. The defensive body suits influence different features of non-verbal communication.

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<sup>&</sup>lt;sup>1</sup>Pellegrini, C. A. (2017). Trust: the keystone of the patient-physician relationship. J Am CollSurg, 224(2), 95-102.

# 1.10 Conclusion

This chapter is a synopsis of the theoretical section of the work, in which aspects related to the study's objective of sociolinguistics are discussed in a succinct and accurate manner. The chapter provides an overview of communication concepts and language variations. In addition, it highlights some social variables and linguistic phenomena that are the result of linguistic diversity. The essential points covered in the last part of this chapter are communication barriers and its different forms, doctor-patient relationship and how covide-19 crisis affected their communication. The next chapter will deal with the research methodology and data collection.

# Chapter Two: Research Methodology and Data Collection

## 2.1 Introduction

Methodology is a paramount part of any research paper, it is intuition recreated in serenity. This chapter is concerned with the research Methodology. With the aim to approve or reject the hypotheses of the study, the researcher handled data gathered From Patient's questionnaire and Doctor's interview at DrBenzerdjeb Hospital of AinTemouchent. In this research, a mixed methods approach was chosen to enhance validity, accuracy of perceptions and hypotheses testing. It includes qualitative and quantitative approaches.

## 2.2 Statement of the Problem

A language barrier has been confirmed to be a risk to hospital treatment quality. As a result, the current study examines into the patient potential dangers associated with language barriers during hospitalization or consultation, as well as how language barriers are explored and bridged in Algerian hospital care.

To realize the purpose of the study, we endeavor to answer the following questions:

- 1. What language do doctors use to communicate with their patients during the therapeutic interview?
- 2. What are the causes of language barriers in the health sector?
- 3. What is the effect of language barriers in communication between patients and doctors?

## 2.3 Motivation for Research

It is through language that we connect and communicate with the world, language helps us express our thoughts, feeling and provide answer to questions. It's a crucial means for communication and interaction.

Algerian's health sector has been Subjected to several Criticisms and accusations, the main ones being misdiagnosis and communication .We observed that language barriers in healthcare lead to miscommunication between the medical professional and patients ,it reducer patient safety and the quality of healthcare delivery,in some cases even the patient's failure to receive convincing answers from health workers is a challenge in the emergence of language barriers in terms of providing satisfaction between medical professionals and patients.COVID-19 pandemic added insult to injury by rising physical and mental health problems , such as anxiety, stress and a particular emphasis on the estimate of psychological health. Our interest is on the Algerian hospitals ,the research took place at Benzardjeb Hospital of AinTemouchent. In fact the purpose of this study is to investigate the impact of language barriers on healthcare and to suggest solutions to address the challenges.

# 2.4 Objective of the Research

Communication is considered as a talent because it is the ability to deal with many different human circumstances, attitudes, personal qualities and others. It is also both an art and a science. However, without the creative exchange of information, no technical cooperation can occur in research, which aids in problem resolving and is a real science. As a result, without good communications, there will be no interaction between different cultures, almost nonexistentlife, and we will end up with a speechless society. Human

health and safety are the most vital since they deal with life-or-death issues and are concerned with human survival in the best conditions.

This research presents a hospital-based study to highlight and understand the impediments between healthcare practitioners and their patients that excites in this work is the type and efficacy of communication in language disharmony interactions, as well as the degree to which risk is transmitted.

Our goal is simply to comprehend language barriers and misinterpretation that may arise between patients and healthcare practitioners (doctors) in healthcare settings, notably when at least one of the speakers is using a second language.

Miscommunication between physicians and patients, as well as other healthcare providers, is a typical issue in Algeria, with some detrimental repercussions. The doctor must be familiar with the art of communication in order to avoid any complications such as misdiagnosis and medical errors

The current study seeks to examine this issue by identifying the primary language barriers experienced by patients and doctors from various specialities, the implications of such language barriers on their practice, and potential solutions. In other words, the intent of this inquiry is to shed light on the extent of patient's satisfaction on the quality of the examination and treatment received from doctors.

The main objectives of the study:

- ✓ the main causes that may lead to language barriers in the health sector.
- ✓ the impact of language barriers in communication between medical practitioners
  from different specialties.
- ✓ the Procedures and instructions that we must strictly apply to avoid
  miscommunication issues between medical practitioners and their patients that
  could be deemed as an overwhelming dilemma.

## 2.5 Limitations

All researches have obstacles that the researcher faces in all his work, whether material or moral. Because any field of research will inevitably face some limitations and deficiency. it is natural that this work may face several types of obstacles that would hinder its work and affect the accuracy of details.

To begin performing research work, the researcher depended entirely on both the questionnaire and the interview obtained data, which made doing the survey challenging. At the instance of the printed questionnaire, we delivered it out personally in the hospital, but only a few patients were capable of filling it out, reducing the quantity of study. Furthermore, participants that made the effort to reply to the questionnaire neglected several important questions, including those that required clarification. Each time the researcher distributed the questionnaire and explain its purpose. Regrettably, Others hesitated to share their opinion and participate in the study because they were too scared of giving their personal details or having their replies utilized for purposes other than research.

Since our case study center takes place at Dr. Benzerdjeb Hospital, we needed 10 sample physicians to participate in the interview. At first, we encountered difficulties to talk to doctors due to the increasing number of Covid-19 cases in AinTemouchent in particular and Algeria in general. With the help of a family member and friend who works in this hospital, I was able to do the interview perfectly. Before the interview we first scheduled an appointment with each doctor. Some doctors work in the hospital and have their own clinic, so they prefer to conduct the interview in their clinic after the end of their practice of work due to the great pressure that this hospital is experienced three doctors refused to hold the

interview during work time, so I asked them to provide me with their phone number and the interview was conducted over the phone.

#### 2.6 Research Methods

Research methods are operations used to gather information This information may be used to examine existing processes or procedures and to obtain new information on a subject. Professionals examine medicine or the change of people's behavior using research methods. Research methods are the plans, procedures, or methods used to integrate statistics or proof for analysis so as to reveal new knowledge or generate a fully acquainted about the topic.

Research Methods are referred to as techniques that will be designed to obtain and evaluate data. It is concerned with which approaches are most appropriate for gathering and analyzing the necessary evidence, also with the numerous research processes and instruments for acquiring information. Creating a research method is an essential component of research design. In a certain sense research method relies on the research design. Research design is a technique for replying experimental data to answer your research topic. Qualitative research methods and quantitative research methods are the two basic types of research methodologies.

# 2.6.1Qualitative Research

Qualitative research is a type of social exploration. It is substantive to recognize that qualitative research is not the only style of social investigation. Shank (2002) defines qualitative research as "a form of systematic empirical inquiry into meaning" (p. 5).

Qualitative research stems from a variety of research traditions or fields. accordingly, there is a wide range of techniques to conducting qualitative research, and these approaches do frequently have some objections. Creswell (2003) believed that quantitative researchers "employ strategies of inquiry such as experimental and surveys, and collect data on predetermined instruments that yield statistical data" (p. 18).Qualitative research has emanated from several distinct norms and disciplines, resulting in a wide range of qualitative research methodologies. Thereby, interpreting qualitative research is sometimes difficult; it is used to produce fresh research perceptions or to get new clarifications into difficulties.Holloway(1997) defines Qualitative research as:

Qualitative research is a form of social inquiry that focuses on the way people interpret and make sense of their experiences and the world in which they live. A number of different approaches exist within the wider framework of this type of research, but most of these have the same aim: to understand the social reality of individuals, groups and cultures. Researchers use qualitative approaches to explore the behavior, perspectives and experiences of the people they study. (P.2).

This type of research methods entails collecting and analyzing data that is not numerically restricted, such as video, record, or written text. Data is exploited to comprehend complicated concepts, events, and viewpoints. Although qualitative data may be applied in any subject, it is most typically used in the human studies and other sciences. Qualitative research allows keeping the positions subject to change and renewal. Opinions can vary and develop throughout the discussion, and qualitative research can maintain that.

Leedy and Ormrod (2005) argue that qualitative research serves one or more of the coming objectives :

- Exploration -by assisting you in gaining preliminary insights into a previously understudied subject or phenomena.
- Multifaceted description -They have the potential to disclose the complex, perhaps multifaceted character of certain circumstances, places, processes, connections, systems, or individuals.
- Verification -by letting you put specific assumptions, assertions, ideas, or generalizations to the test in real-world contexts.
- Theory development -by helping you create new notions or theoretical viewpoints on a phenomenon.
- Problem identification -by assisting you in identifying important challenges, hurdles, or enigmas within the phenomena.
- Evaluation -by providing a way of assessing the efficacy of certain policies, practices, or innovations.

On the other hand, Qualitative research has been viewed by Denzin and Lincol(2011:03) as: "Qualitative research is a situated activity that locates the observer in the world... It involves an interpretive, naturalistic approach to the world... qualitative researchers study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meanings people bring to them".

Furthermore, Hitchcock and Hughes (1995: 295) explain qualitative methods as: "the ways in which the researcher moves from a description of what is the case to an explanation of why what is the case is the case." Qualitative methods are used to address questions concerning experience, meaning and viewpoint, probably from the participant's point of view. These kind of data are rarely statistical or measurable, qualitative methods have been in use in philosophy, social science and history for decades.

# 2.6.2 Quantitative Research

Quantitative research is the stage of achieving and checking the data collected. This method can be used to determine which of these hypotheses is valid. Many fields apply quantitative research, most notably: psychology, economics, sociology, health and human development..etc.According to Leedy&Ormrod (2001) "Quantitative researchers seek explanations and predictions that will generate to other persons and places. The intent is to establish, confirm, or validate relationships and to develop generalizations that contribute to theory" (p.102).The purpose of quantitative research is to create and apply theories, and hypotheses about phenomena.Additionally,quantitative research is described as a methodical examination of issue through the collection of measurable data and the use of statistical, mathematical, or technological approaches.

The following table clarifies the key differences points between Quantitative research and Qualitative research:

Table 2.1 Qualitative vs Quantitative methods of research (Lichtman, 2014:17)

Element	Qualitative	Quantitative
Purpose of research	Describe and understand human and social phenomena	Test hypotheses; provide descriptive information
Types of research questions	Why and what	How many and who
Assumptions about the world	Subjective interpretation	Objective reality
Setting	Natural	Experimental: laboratory
Role of researcher	Key role; reflective	Outside of the system: neutral
Size of group studied	Tends to be smaller, nonrandom	Tends to be larger, randomly Selected
Selection of group	Purposeful sampling: snowball sampling: volunteers	Random or stratified sampling
Variable	Study of the whole rather than specific variables	A few variables studied; somemanipulated; some controlled
Type of data collected	Interview; observational; visual	Outcomes; scores
Type of analysis	Thematic or narrative	Statistical
Presentation format	Experimental format-may include alternatives such as performance	Traditional forma

# 2.6.3 Mixed Methods

A mixed-methods design combine and unite diverse data sources, supporting in the investigation of difficult problems(Poth&Munce, 2020). A combination of two methods may be preferable to a single method because it is more likely to yield clear vision into study phenomena that cannot be completely comprehended using just qualitative or

quantitative methods. Thus, combining the two methods allows for the integration of two segments of toughness while adjusting for the limitations of each method. Then, the mixing of quantitative and qualitative methods is frequently recommended into account the fact that a researcher may take use of the respective strengths of the two approaches while avoiding the respective shortcomings of the two approaches and producing precisely result.

According to Creswell and Plano Clark (2007), mixed methods research is typically considered as a technique approach. Figure 2.1 depicts a diagram of the essence of mixed methods research.

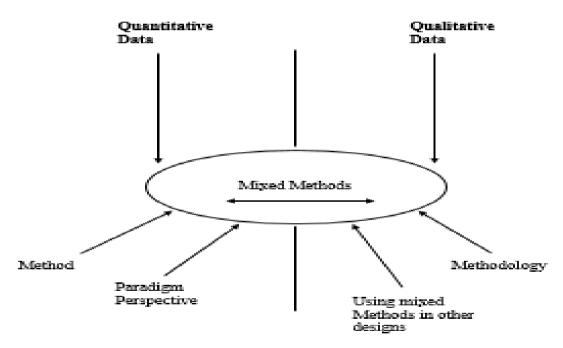


Figure 2.1 The Essence of Mixed Methods Research Diagram. (Creswell, 2010:51)

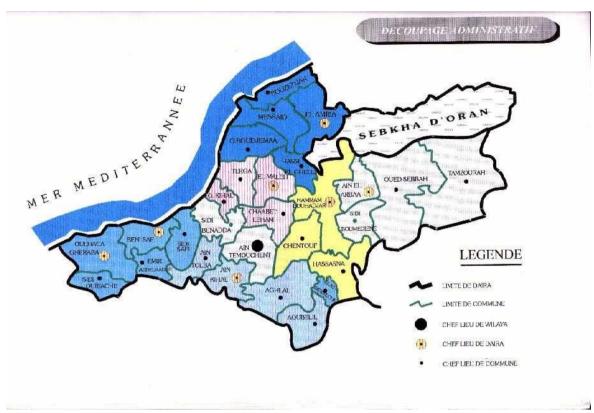
According to (Creswell, 2010) mixed methods research is more than just collecting two distinct strands of quantitative and qualitative data. Mixed approaches entail linking, inclusion, or merging quantitative and qualitative data, as well as the interference of both quantitative and qualitative data measure.

# 2.7 Case of Study

A case study is an empirical inquiry that investigates a contemporary phenomenon within its reallife context, especially when the boundaries between phenomenon and context are not clearly evident (Yin, 2003). On the other hand Stake (2005) proclaimed that: "Case study is not a methodological choice but a choice of what is to be studied." (p. 438)

The case study is intended to supplement the other items on the website rather than to stand alone as a teaching instrument .The case study's major purpose is to show users how the image standards apply in the setting of an authentic experimenter, and how they connect with concerns of guidance and professional training. In addition to supplementary purpose, the case study is planned to reinforce awareness of the principles governing picture display. The case study also seeks to assist users in identifying numerous dispersions and pressures that increase the likelihood of wrongdoing, as well as in reflecting on strategies to resist those fragmentations.

In the current study, the data are collected at Dr. Benzerdjeb Hospital of AinTemouchent. AinTemouchent is one of the Western Algerian cities, which appeared within the administrative division of 1984. It occupies an area of 2,377 km2, it is divided into eight districts and 28 municipalities. AinTemouchent is regarded as one of Algeria's most vital tourist areas. AinTemouchent is located in the middle of three of the major Algerian cities: Oran, 68 km away, Tlemcen, 72 km, and SidiBel Abbes, about 63 km.



**Map2.1** The Geographical location of AinTemouchent

Our research was carried out at Dr. Benzardjeb hospital of Aintemouchent. AinTemouchent city consists of five hospitals: two of them are in the same city, Dr Ben Zerdjeb and Ahmed Medeghri hospital and three in different districts: HammamBouhdjar hospital known as "SidiAïd", les frères Bencherit at El Ameria and BeniSaf hospital. the name of this Hospital was taken from the Algerian Politician and the doctor Ben OudaBenzardjeb.he was born on January 09,1921 in Tlemcen and was executed on January 19, 1956 in Sabdo. Dr Ben ZerdjebHospital is the most important gains in the Algerian west has come to attract huge numbers of patients especially in some specific specialties.

At the end of January 2022, AinTemouchent Hospital organized a forum for training doctors by a delegation consisting of a group of foreign doctors from the French Lyon Hospital. The activities of this forum ended in good conditions, resulting in

successful operations on the level of the head and spinal cord. It was well received by patients, especially parents of children who were taken care of in a comprehensive way, as well as the medical and paramedical practitioners of the hospital in particular. This forumaimed at providing surgical care for programmed patients and exchanging expertises between doctors.

As a matter of fact, the choice of this hospital was for many causes. Initially it contains almost all the specialties. Besides, it is the only Hospital at this moment that has not been dedicated to covid'spatients, which facilitate our studies and investigation.

# 2.8 Description of the Sample

Who had the opportunity to work on a project, will gain complete knowledge that resources are limited. In that way time and people are never in infinite supply. Accordingly, most investigations seek data from a sample of people rather than the full population.

A sample is a set of volunteers who have been accurately chosen by the analyst for achieving the objectives of the study. When a researcher studies a sample of a wide variety of possible participants, the results are used to develop testimonies that apply to the larger group or populations. The extent to which findings may be extended to a groups reflects the apparent legitimacy of the study plan. In addition, asample is set of components or a single element from which the data are gathered, and most likely it is impractical to attempt and study the whole residents that is concerned in (Dhivyadeepa, 2015). In order to collect high-quality information, the researcher must find suitable participants. Sampling can be either random or non-random.

**Random sampling** is a sampling strategy in which each sample has an equal chance of being chosen; it is based on probability. When a researcher uses random sampling, he guarantees that every person of the population being examined has an equal opportunity of being chosen to participate in the study. When it is neither feasible or practical to collect a random sample, researchers will frequently use another category of sample.

**non-random sample** is one in which not every individual of the population being researched has an identical possibility of being chosen. In this kind of sample, the sample is chosen based on criteria like the interest and experience of the researcher.

To be entirely impartial, the sample population of the current study is picked in a non-random manner depending on variables such as the researcher's interest and expertise.unique respondents of varied ages, genders, and educational levels. We picked a sample of physicians and patients from Dr. Benzerdjeb Hospital in AinTemouchent. We questioned 35 patients through a questionnaire containing 12questions, the other sample consists of doctors from the same hospital who were already interviewed. These two research instruments are collected in order to get further insights into the area of interest and, ultimately, to validate or disprove the aforementioned research hypotheses.

# 2.8.1 The Participants

The current research study has taken place in the city of AinTemouchent specifically at Dr. Benzardjeb Hospital. The sample population, hence, are the patients who were examined in this hospital, regardless of their original place of residence.

The questionnaires served in this sociolinguistic study were held with a sample population of 35 participants in four age groups: [-20], [20-35], [36-51], [more than 51].

allof which agreed to take part in the research study. Unfortunately, it was difficult to hold an electronic questionnaire due to the unavailability Group of patients in social media. So the questionnaire was managed in one form, namely written.

The table below exposes the sample population undertaken by means of four age groups of both genders.

**Table2.2 The sample population** 

Age Group	Females	Males	Total
-20	4	5	9
20-35	4	6	10
36-51	7	4	11
+51	4	1	5
Total	19	16	35

The questionnaire was distributed to 35 patients, A couple of them were easy to convince to fill out the questionnaire, while some refused, especially those who were older. Some of them invoked their illiteracy, while others were persuaded to answer the questionnaire orally. As for the participants approached via the second research instrument, ten (10) doctors were interviewed, at first, 02 doctor refused to reply on the interview while conducting their work in hospital so the researcher had to move on their private office and receive their responses.

#### 2.9 Research Instruments

There are countless options for experiments in the domain of research, all involving unique equipment to execute the work required to answer the questions. Because of the varied requirements of a researcher, it is difficult for everyone to be familiar with every instrument accessible, especially as technology progresses. Despite the fact that each

research is unique, they all have in common the necessity for research instruments to aid in the execution of tests in the hunt for knowledge development. Tools and equipment are all essential elements of each scientist's daily routine. Each of these parts is necessary in filling in the missing gaps ,research instruments are the most important of all.

Research Instruments are tools for measuring, they include:questionnaires, interviews, recordings, observations. It is designed to receive data on different topics of interest from research subjects. In our study, we used two research tools: the questionnaire for patients and interview for doctors.

# 2.9.1 The Questionnaire

The prominence of questionnaire in research is massive, it assists researchers to access adequate information promptly and effectively. A questionnaire is a form of research instrument that comprises of a series of questions designed to elicit information from a participant. According to Copland et al. (2010), a questionnaire is an instrument designed to gather information by means of analyzing responses to a number of questions. A research questionnaire is often composed of both closed-ended questions and open-ended questions.

- Open-ended questions allow participants to reply in their own thoughts, in as much or as little information as they like.
- Closed questions present responders with a range of prepared answers from which they can pick.

A questionnaire might be provided in the form of a survey. However, a survey consistently includes a questionnaire. The data collected from a data collection questionnaire might be both qualitative and quantitative in nature.

Questionnaires have benefits over other sorts of surveys in that they give a relatively inexpensive, rapid, and accurate method of gathering huge volumes of information from a wide sample of participants. Furthermore, questions do not have to be delivered in the presence of a researcher.

Questionnaires can be delivered online, over the phone, on paper, in face to face or by mail.

- 1. Mail questionnaire: This type of questionnaire requires the researcher to mail the list of the questionnaire to the respondents. Mail surveys benefit from supplying more accurate answers because respondents may fill out the survey at their leisure.
- 2. Telephone questionnaire: Researchers call respondents and give the questionnaire through phone. The main disadvantage of the phone questionnaire is that most people are uncomfortable answering several questions over the phone.
- 3. In-house: In this kind of questionnaire, researchers personally visit respondents at their homes or workplaces to give the survey.

# 2.9.1.1 The Language of the Questionnaire

Since the sample covers a large category of participants who do not master or unfamiliar with English language, the questionnaire had to be translated and written in Modern Standard Arabic in order to facilitate data collection as quickly as possible .on the whole, the questionnaire authorized for the collection of thirty five (35) responses from the Arabic version.

# 2.9.1.2 Patient's Questionnaire

In the current research, the questionnaire was based on one group that contained (35) Patients from Dr Benzerdjeb hospital in AinTemouchent .Dr Benzerdjeb hospital was selected as a sample to elicit the main barriers to healthcare communication. The patient's questionnaire contained fourteen questions; it is divided into two parts. The first part is

intended to extract the matters regarding patients on both sides social and linguistic features, and it comprises of closed-ended questions to which they can only answer or choose from specific set of predetermined responses, like yes /no or among set of multiple choice questions. The questionnaire also contains another form of questions in the next part open-ended questions, where the researcher asks patients to give their opinions and propose recommendations to ameliorate the relation between doctor and patient in order to eradicate barriers in healthcare.

## 2.9.2 Interview

In qualitative research, an interview is an interaction in which questions are posed to obtain information. An interview can take into consideration numerous features of the respondents that may have been significant to the development of the common measure(keats, 2000).it is essential in the entire choosing process of a candidate and used to examine the interviewee's job-related expertise and capabilities. As Schotack (2006:1) declares, "The interview is not a simple tool with which to mine information. It is a place where views may clash, deceive, seduce, enchant". Another definition is provided by Kvale (1996: 174), an interview is "a conversation, whose purpose is to gather descriptions of the life world of the interviewee". An interview is an organized interaction in which recruiters ask questions and respondents reply. it provides insight into the candidate's reasoning knowledge. There are three different formats of interviews: structured, semi-structured and unstructured.

1. **Structured interviews** are made up of a sequence of predefined questions that are answered in the same order by all interviewees .Data analysis is typically simpler since researchers may compare and contrast various responses to the same inquiries. Structured interviews allow the interviewer to ask the same questions to

each responder in the same manner. In structured interviews, not only the questions are predetermined, but also the probable responses.

- 2. Unstructured interviews are typically the least dependable in terms of research since no questions are planned ahead of time and data gathering is done in a normal way. Unstructured interviews can be linked with a high level of partiality, and comparing responses from various respondents might be difficult owing to changes in question wording.
- 3. Semi-structured interviews combine elements from both structured and unstructured interviews. In semi-structured interviews, the interviewer arranges a series of questions that all interviewees must respond. Simultaneously, extra questions may be asked during interviews to clarify or expand on particular problems.

#### 2.9.2.1 Doctor's Interview

In this section of our research, we will conduct interviews with doctors from DrBenzerdjeb Hospital of AinTemouchnet .We interviewed nine doctors who took part in this study by asking them ten questions that they were meant to answer. The duration of the interviews ranged from 08 to 10 minutes, before the interview we first scheduled an appointment with each doctor.

Some doctors work in the hospital and have their own clinic, so they prefer to conduct the interview in their clinic after the end of their practice of work due to the great pressure that this hospital is experienced .three doctors refused to hold the interview during work time, so I asked them to provide me with their phone number and the interview was conducted over the phone. Each interview began with an overview of the research subject

and the main reasons that led us to bring it up. The doctor's interview comprised set of predetermined questions.

The interviewer structured and organized the questions ahead of time.we translated the interview from English into Arabic for the doctors.During the interviews, I took handwritten notes on key points. In the end, I summarized the interviews and the most important statements from the doctors in order to analyze them afterwards. It is noteworthy that the goal of this research tool is to supplement the inquiry with extra information from professionals, those who are familiar with everything going on in this field.

## 2.10 Conclusion

The current chapter has dealt with the description of the research methodology in order to give an overview on how the study is carried out. It emphasizes and clarifies the methodological methods approved for the study, the sample population and the instruments applied to gather both quantitative and qualitative data specifically the questionnaire directed towards patients and the interview designed to doctors. It also prioritizes the motivation behind conducting this research work and addresses its objectives and limitations. Hence, the main findings will be meticulously debated and analyzed in the following chapter while giving some suggestions and recommendations.

# Chapter Three :Data Analysis and Interpretation

## 3.1 Introduction

The current chapter focuses on the practical side to examine the research questions and hypotheses aforementioned in the present work, through the two research instruments namely questionnaire which has been allocated for patients and interview for doctors. This chapter attempts to analyze and discuss the obtained results in detail, this latter are clarified by Charts and graphs. Moreover, it is concerned with the expose of the main barriers in healthcare and endeavoring to provide some suggestions and recommendations.

# 3.2 Data Analysis

This section is mainly allotted to the analysis and discussion of the results of the research study that were collected through the two data gathering, precisely the questionnaire that was apportioned to patients as well as the interview that was performed to doctors.

# 3.2.1 Patients' Questionnaire Analysis

The questionnaire was submitted to 35 patients.it was divided into two categories; nineteen(19) females and sixteen (16) males. The questions seek to gather information about the impact of language barriers on patient satisfaction in Dr Benzerdjeb hospital and the burden of the Corona pandemic on the doctor-patient relationship. Furthermore, this research instrument consists of fourteen (14) questions in general, however, the written questionnaire is divided into two sections Each question will be analyzed individually.

**Section One:** It contains five (05) questions that aim to collect general information about respondents' gender, age ,level of education and language use .

Question one: What is your gender?

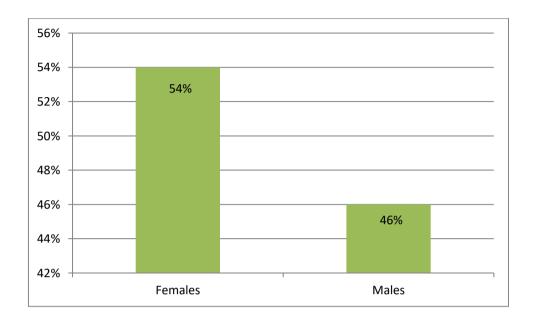


Figure 3.1 Percentage of Respondents' Participation

This question aims to measure the number of females and males participating in this research study. Out of 35 participants sixteen (16) were males that made up 46% of the sample population. Whereas the number of females slightly outruns the former with a number of nineteen (19) females having a ratio of 54%. This difference between the gender of the participants is attributed to the presence of a large number of women in hospitals, specifically in the waiting and examination hall.

The possibility of the difference between the numbers of gender is likely to be that women are the sex most interested in physical health. In other words, they are obsessed with medical consultations, and the second possibility is likely that men are more neglectful of medical examination.

**Question two:** What is your age group?

**Table3.1 The Questionnaire's Sample Population** 

Gender	Females		Male	es
Age group	Number	%	Number	%
-20	4	11%	5	14%
20-35	4	11%	6	17%
36-51	7	20%	4	11%
+51	4	11%	1	3%

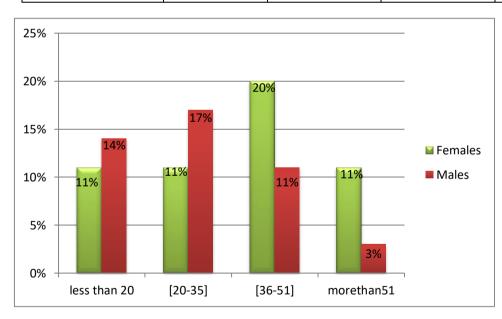


Figure 3.2 The Questionnaire's Sample Population

The second question is designed to specify and classify respondents into their corresponding age groups with relation to both genders. Table 3.1 provides the number of participants in details. Thus, the results obtained for the second question showed from

#### CHAPTER THREE: DATA ANALYSIS AND INTERPRETATION

Figure 3.2 that from a total of thirty-five (35) participants the highest score of patients ranges from 36-51with a ratio of 20% for females and 11% for males, and from 20-35 with a percentage of 11% for females and 17% for males. Furthermore, we notice that the age groups less than 20 have the ratio of 11% for females and 14% for males. Whereas, the age group more than 51 has the least percentage of 14% for it includes four (4) females and only one (1) males.

Question three: what is your academic level?

**Table3.2: Participants' Academic Level** 

Academic level	Number of participants	%
Analphabetic	5	14%
Primary school	7	20%
Pre-university	14	40%
University	9	26%

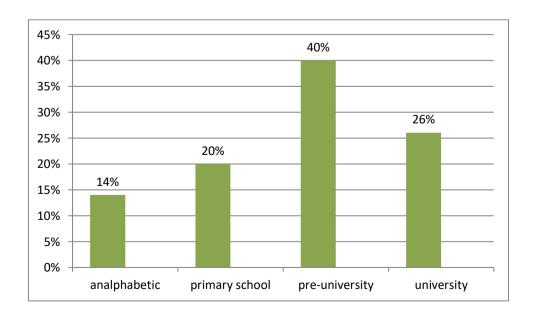


Figure 3.3: Patients' academic level

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This question attempts to identify patients' level of education. Therefore, The above table (06) and figure (05) show that four women and one man with the ratio of (14%) are illiterate, seven patients of the total number of respondents have a primary level constituting the 20%. We notice that the higher score is the one with pre-university level, fourteen (14) of the participants answered that they have a pre-university level which includes middle and secondary school and indicates a percentage of (40%), while nine (9) of the participants with the ratio of (26%) have a university educational level.

This was an important question in the research work.because there is a strong relationship between the educational level and language barriers. The educational level, and language barrier variables are inversely proportional. As the educational level decreases, the language barrier increases and vice versa.

**Question Four:**How do you rate your use of languages?

Table 3.3 Languages used by the patient

Language	A A	French	Berber
answers			
Always	100	6%	0%
Sometimes	0%	29%	9%
Never	0%	65%	91%

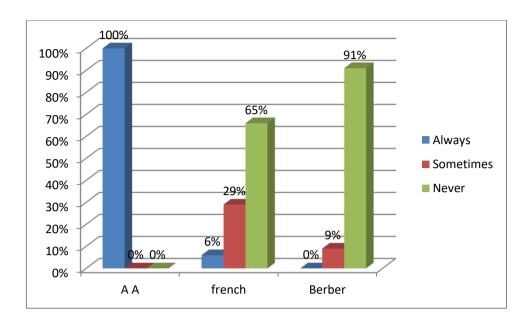


Figure 3.4 Languages used by the patient

The orientation towards a question like that was to attempt to answer the question how patients rate their use of language and the frequency of using Algerian Arabic ,Berber and French language in patients everyday lives .In fact, according to the scores of the table 3.3 and fig 3.4 .We noticed that AA scored the highest percentage of use in the category of "Always" with a rate of 100%.In contrast ,the "Sometimes" and "Never" category obtained no recorded among patients.

Particularly with regard to French, the "Never" category obtained the highest rate 65%.whereas 29% of the participants stated that they sometimes used French in their everyday lives and only 6% stated that they always used it.

Concerning Berber ,the "Never" category obtained the highest rate 91%, while only 9% Of the participants stated that they sometimes used Berber and "Always" category obtained no recorded among patients.

**Question five**: Which language did the doctor use during the consultation?

**Table3.4 Language used by doctors** 

language	Number of participants	percentage
Arabic	5	14%
French	3	9%
both	27	77%

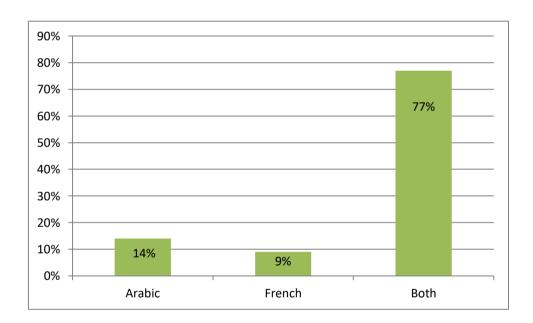


Figure 3.5 Language used by doctors

The objective of such a question was to know which language did the doctors use during the medical consultation. After analysing the results of table and figure, we found that the majority of participants 77% said that doctors use both Arabic and French during the consultation. 14% of participants said that doctors used Arabic .Whereas ,Only 9% Of participants replied that doctors used French excessively during the medical consultation.

**Section two**: it contain six questions on Patients Satisfaction with Doctors Interaction during Covid-19 Pandemic.

**Question six**: Are Doctors in Private Healthcare Sector more efficient than the public one at giving adequate diagnosis during the Covid-19 Pandemic?

Table 3.5 Private sector vs public sector in provide adequate diagnosis

Sector	Number of participants	%
Public sector	13	37%
Private sector	22	63%

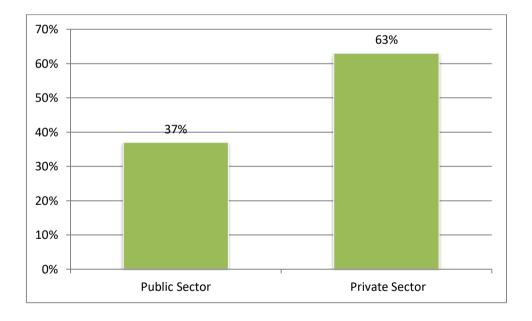


Fig3.6 Private sector vs public sector in providing adequate diagnosis

Figure 3.6 indicates that 63% of patients stated that doctors in private sector were more efficient in providing adequate diagnosis, than the public one during the covid-19 pandemic. Some patients stated that they stayed away from diagnosing hospitals during the Covid-19 pandemic, and they preferred doctors in private clinics to avoid gatherings for

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fear of infection and transmission, as private clinics contain sufficient means to diagnose patients and contain a high organization. The doctor in the private clinic provides sufficient information and more time during the medical examination, unlike Public clinics, it included a severe shortage of medical supplies and catastrophic organization. In contrast, 37% of participants preferred doctors in public sector, because they couldn't pay bills that cost a lot.Regardless of the quality of the diagnosis.

**Question seven**: Did the doctors ask you about your financial situation before you were given an analysis or prescription, during covid-19 crisis?

Table 3.6 Doctors' interest on patient's financial situation.

Category	Number of Participants	%
Always	4	11%
Sometimes	10	29%
Never	21	60%
never	21	00%

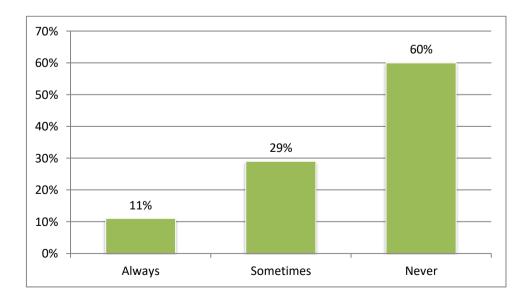


Figure 3.7 Doctors' interest on patient's financial situation.

The target behind asking this question is to investigate whether the doctors care about the patients' financial situation before providing medical analysis or not. The scores in the figure 3-7 show clearly that 60% of patients stated that they were never asked about their financial situation ,while 29% of patients sometimes were asked about their financial situation and only 11% of participants confirmed that they were always asked about their financial situation by the doctor.

**Question eight**:Did the Covid-19 pandemic affect the duration of the medical examination?

Table 3.7 the effect of covid-19 on the duration of medical examination

answers	Number of participants	%
yes	28	80%
no	7	20%

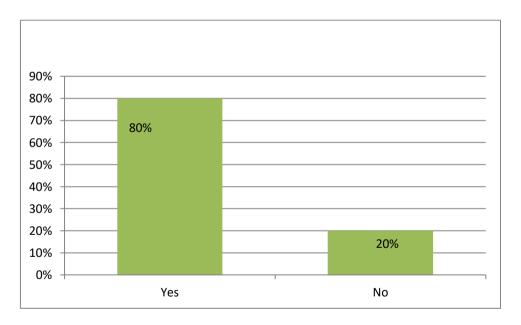


Figure 3.8 the effect of covid-19 on the duration of medical examination.

This question is essential as it attempts to show the effect of covid-19 on the duration of medical examination. Figure 3.8 above indicate that the majority of patients (80%) state that covid-19 had a profound effect on the duration of medical examination.

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Still (20%) of patients do not agree, they think that covid-19 didn't effect the duration of medical examination. With regard to the latter, the duration was therefore unchanged during the pandemic.

**Question nine:** Are you satisfied with the examination you are receiving from Benzerdjeb hospital doctors?

Table 3.8 Patient's satisfaction of the medical examination

suggestion	Number of participants	Percentages
Very satisfied	2	6%
Somewhat satisfied	9	26%
Somewhat dissatisfied	16	45%
Very dissatisfied	8	23%

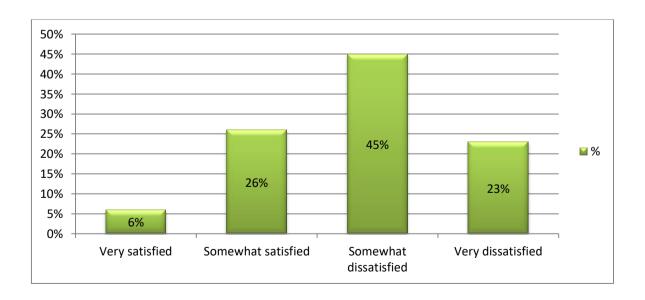


figure 3.9 Patient's satisfaction of the medical examination.

This question aimed at obtaining information about the satisfaction of the medical examination, most of patients (45%) are somewhat dissatisfied with the medical examination that were received from doctors. About (26%) said that they were somewhat satisfied with the way health care services were provided in this hospital.

About (23%) of patients are very dissatisfied with the medical examination that are provided by doctors. And Only (6%) of them are very satisfied and believe that Benzerdjab hospital doctors provide high-quality of medical examination.

**Question ten**: According to you, can the use of medical jargon lead to ineffective doctor – patient communication?

Table 3.9 the effect of medical jargon on Doctor - Patient communication

Answers	Number of Participants	Percentage
Yes	29	83%
No	6	17%

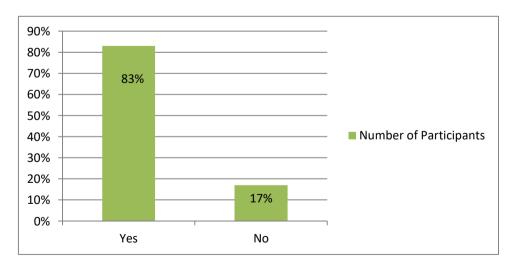


Figure 3.10 The effect of medical jargon on Doctor – Patient communication

The aim beyond this question is to ascertain the impact of medical jargon on effective communication between doctors and patients. From the table 3.9 above, about

(83%) of patients said that medical jargon effect their communication with doctors.Because it hinders understanding of their health status.

On the other hand, (17%) do not agree on the point of medical jargon can lead to ineffective doctor –patient communication. The majority of respondents to this question were from a university level of education. Thus, this helps them understand some medical terms.

**Question Eleven:**How do you rate your level of communication with doctors in healthcare during Covid \_19 pandemic?

Table 3.10 Level of communication with doctors in healthcare during Covid-19

Category	Number Participants	Percentage
Excellent	0	0%
Good	9	26%
Fair	4	11%
Poor	22	63%

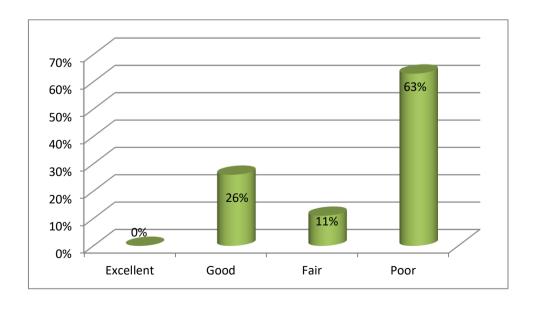


Figure 3.11 level of communication with doctors in healthcare during Covid-19

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The answers to this question were essential for the study, to see if the level of communication with doctors in healthcare was impacted by covid-19 pandemic. As indicated in the table above, not a single patient said that the level of communication with doctors were excellent. Yet, according to (26%) of patients pointed out that their level of communication with doctors in healthcare during covid-19 pandemic was good. Furthermore, only (11%) have chosen the "faire" option.

Lastly, As it was predicted, (63%)% of patients have chosen the "poor" option ,they are unsatisfied by their level of communication. This ratio show that covid-19 created difficulties in effective doctor-patient communication.

Question twelve: In your opinion, What are the main important barriers that led to the deterioration of healthcare communication during the COVID-19 pandemic?

The purpose of the last question included in this questionnaire was to explore the main important barriers that led to the deterioration of healthcare communication during the COVID-19 pandemic.In other words this question is asked to know the most barriers and challenges faced by patients during covid-19 crisis.Each patient has his own opinion. From the answers obtained, we noticed that the majority of answers fall on the next views:

- Misinformation and inadequate information about the crisis.
- Language differences and use of medical jargon.
- > Overall reduction in the provision of general services .
- > Deferral of programs for some important and urgent operations.
- Losing trust in the hospital and health workers.
- ➤ Work under stress and fatigue.
- ➤ Lack of communication and professional competence.
- > Personal protective equipment and Physical distancing.
- > Miscommunications and cultural differences.

These are the main important barriers that led to the deterioration of healthcare communication during the COVID-19 pandemic.In all honesty some barriers could create problems even when the pandemic is over.The patients complained of difficulty in accessing the health facility, the overwhelming majority had difficulties during the crisis in communicating with the doctors. Depending on the views of the participants, covid-19 created barriers to effective doctor patient communication and led to lack of confidence in doctors during that time.

## 3.2.2 The Doctors' Interview Analysis

The aim behind using the interview as a secondary research instrument along with the questionnaire is to get more information about the subject under investigation, as long as, this instrument can equip immediate and accurate findings. The interview was performed in Arabic, ten doctors were chosen to be interviewed .we provide them with eight questions. Hence, each question was separately analysed as follows.

#### **Question01: What is your specialty?**

Table 3.11 Doctors' specialty

Doctors' specialty	Number of Doctors
Ophthalmologist	1
General Practitioner	2
Epidemiologist	2
Maxillo -Facial surgery	1
Pediatric surgeon	1
Anesthesiologist	2
Orthopaedic	1

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Table 3.11 shows various medical specialties. Every doctor was stationed in his own treatment department. Some of them work in several hospitals, for instance the hospitals of neighbouring states such as Oran ,Sidi Belabes and Telmcen .

In our research work, Meeting an epidemiologist was necessary to provide us with adequate and accurate information .towards this end, we interviewed two (02) doctors, who work at epidemic section .We made sure to meet doctors from different specialties to guarantee obtaining diverse and sufficient information. Consequently, The answers from interviewing doctors may be different, Given the different fields of specialization and the duration of their expertise.

### Question02: how long have you been a doctor?

Table 3.12 doctors' years of experience

years of experience	Number of doctors
Less than 10 Year	2
10 Year	3
More than 10 year	5

As shown in the table 3.12, two doctors with less than 10 years experience, Three doctors have an experience of about 10 years, and five doctors have more than ten years of experience. It is no secret to anyone that the success of a doctor is not limited to the number of years of work. Sometimes a doctor with little experience is fully knowledgeable to communicate with patients and vice versa.

### Question03: Which language do you use during the consultation?

Responding to this particular question all doctors with no exception whatsoever, argue that they use both Arabic and notably French. As we know that French is a prevalent language among health workers, particularly among doctors. Two doctors From general medicine state that they were taught medicine in the French language for seven years, whereas, the remaining doctors state that they were taught medicine in the French language for twelve years. That's why it's difficult to abandon the use of French within the framework. Doctors said that they preferred to use French when there was a response from the patient. There was a doctor who stated that she felt that diagnosing and explaining the patient's health status in French would make her feel comfortable, as it provided sufficient information, unlike the use of the Arabic language, and this was due to the difficulty of translating medical terms into Arabic.

# Question 04: Which category of patients you find difficult to communicate with during covid-19?

This question aims to figure out whether doctors find some difficulties in dealing with a certain category of patients Or they find it easy to communicate with all patients.

This question took a significant amount of time to answer during the interview. Six doctors mentioned that they find it difficult to deal with elderly patients due to their exposure to the risk of health illiteracy, which increases the difficulty of understanding medical terms that would help them understand their health condition, in addition to their delay in the medical appointments that the doctor has the duty to schedule and they stated that the delay was due to forgetfulness ,Fear of the spread of the epidemic and the physical aspect of not being able to go to the doctor. In addition to the difficulty of persuading them

to perform surgeries that can relieve them of some diseases, the elderly are reluctant to perform such surgeries, believing that the success rate of surgeries is low because they have become very old. In this regard, the anesthesiologist claimed that: "it is true that the elderly patient can be anesthetized in some way, but the age alone has nothing to do with whether the elderly patient can perform the operation or not." this means that the age cannot be a reference for the success of any operation. On the contrary, many operations were carried out on the elderly and were successful.

Furthermore, some doctors said that it is difficult to deal with children due to the lack of capacity to take their own decisions and patients who find obstacles in understanding health information owing to a lack of a healthy culture. Thus, this category does not adhere to health measures that mitigate the increase in the number of positive cases of the epidemic. Additionally, two doctors announced that they encounter a massive hassle dealing with deaf and mute persons and patients with mental or neurological diseases; that's because some of them may be unconscious, in state of fainting or agitating.

# Question 05:Do you ask the patient about his financial situation before giving prescriptions and tests?

This question is quite similar to the one asked in the questionnaire. This question is raised to know whether the doctor cares about the patient's financial situation before providing medical analysis or not. The results obtained revealed that most of the doctors hesitate to ask about the patient's financial budget. They argue that sometimes the state of the patient's health requires it, then patient's health is the highest priority. Additionally, It was difficult for us to satisfy and take care of the patient's financial situation from the side of tests and medicines, especially during the covide-19 pandemic, as it was necessary to

take these medicines to obtain a greater percentage of recovery in a short time, but in some cases it is possible to dispense with prescribing a medicine and replace it with another medicine; that is less expensive to reduce the burdenTreatment expenses in line with the ethics of the medical profession.

# Question 06:Do you think that the use of foreign language during the consultation could block patient communication?

Endeavoring to test the research hypotheses, the doctors were asked to mention whether ,the use of foreign language during the consultation could block patient communication or not .It is noteworthy that the dominant language of doctors' communication is French . That's why most of the interviewees agreed that patient usually find difficulties in understanding French due to the difficulty in translating terminology into Arabic in a very short time .This makes them ask a lot of questions during the medical examination to reveal their health status . However, a few doctors said that some patients can easily understand our speech even when we use some medical jargon ;this is due to their level of education and their general knowledge of health information.

### Question07: How poor communication can affect patient's satisfaction?

The results reveal that almost all doctors expressed agreement that miscommunication may lead to patient dissatisfaction by highlighting the most important causes related to patient satisfaction such as the patient's age, education level, regularity in the number of visits, waiting time, communication skills with doctors, and patient confidence. Poor communication methods can impede communication and generate misunderstandings between patients and the medical staff within the hospitals; which may lead to patient dissatisfaction. The doctors claimed that the manner of communication

make a difference to the patient's level of satisfaction. Moreover, the patient satisfaction is positively associated with patient trust and Adversely affects waiting queue.they even argue that the ability to adapt the aspect of trust with the patient, in particular through the strengthening of communication assist in improving patient satisfaction with the consultation and improves treatment adherence thus lead to better patient satisfaction .one doctor state that she had diagnosed a patient with epilepsy but her parents believed their daughter was suffering from "sihr<sup>2</sup>". That's why the parents did not commit the proper drug. Thus, cultural differences and miscommunications can affect patient satisfaction.

### Question08:How did Covid-19 affect the doctor-patient relationship?

It should be noted that the relationship between the doctor and the patient is subject to many criticisms, and most of these issues existed before and were already the subject of many discussions. The majority of interviewees highly approve of such impact and then the gravity of the coronavirus pandemic only made them much more obvious than ever before. The interviewed doctors have declared that the doctor-patient relationship was affected due to ineffective communication and the differential diagnosis as a result of preventive measures such as physical distancing and masks created barriers to effective doctor-patient communication. Additionally, Some of them maintain that coronavirus has led to an explosion of new words such as the imposition of curfews, quarantines, sars-cov2, hand hygiene ,immunity, antigen test ,transfer the virus ,disinfectant.. etc, all these words yielded language barriers. Eventually, they emphasized that work under pressure and Loss of many medical corps have impacted the good performance of doctors.

<sup>&</sup>lt;sup>2</sup> The arabic word for magic

## Question 09: what do you suggest in order to overcome language barriers in healthcare?

In the last question doctors provide a variety of suggestions to get through language barriers in healthcare. The suggestions were as follows:

- ✓ Teaching doctors how to deal with patients or what is known as the art of communicating during a medical examination .
- ✓ Intensifying efforts to eliminate health illiteracy.
- ✓ Provision of training courses on sign language to facilitate dealing with deaf person.
- ✓ Verification of patients' understanding of information about their health status (Check both that you've understood what has been said and that others have fully understood you).
- ✓ Caution should be exercised by medical jargon, as this condition may cause miscommunication.it's better to provide in parentheses a description of what these means.

## 3.3 Discussion and Interpretation of the Findings

The fundamental aim of this research work is to determine language communication barriers in healthcare services specifically in Dr Benzerdjeb hospital of Ain Temouchent. In an effort to reach this goal, the researcher attempted to interpret the results obtained from patients' questionnaire and doctors' interview.

From the first and second question we wanted to know the gender and age of patients who participated in the questionnaire. Moreover, the results gained from these questions revealed that all patients from both genders, male and female, whose ages vary

from 20 to more than 51 years old. Thus, these answers show that the questionnaire was answered by different age groups.

The third question was asked to know about their academic level. The results show most of the patients have a pre- university level which includes middle and secondary school, while a few of them esteemed their level as illiterate. Others qualified their levels as being primary level. Some patients, on the other hand have a university educational level. The findings show also that the questionnaire was answered by different educational levels. It is deduced that the patient's level varies greatly from one to the other.

In the fourth question, the patients were asked to respond on what language(s) they often use in their daily life, and the majority of the participants prefer to use Algerian Arabic. They have to use it with their parents and friends; it is their mother tongue which means that they favor using their dialect and because they are more familiar with it. Some patients use French language because they are also familiar with it in their daily life. However, only a minority use Berber Because AinTemouchent is not an area of Amazigh.

From the data provided in question five(05), we noticed that the majority of participants state that doctors use both Arabic and French during the consultation, whereas few of patients state that doctors used French excessively during the medical consultation. The results obtained from the collected data show that certain patients may be more comfortable with the doctor's use of Arabic only. Thus, using French during the consultation causes many barriers to communication.

The results of the question six (06) show that the majority of participants agree that doctors in private sector are more efficient in providing adequate diagnosis than the public

one. They claimed that the doctor in the private clinic provides sufficient information and more time during the medical examination. Unlike Public clinics which included a severe shortage of medical supplies and catastrophic organization. However, a minority of them disagree on this idea that considered doctors in private sector as more efficient in providing adequate diagnosis than the public one, because they couldn't pay bills that cost a lot.

Concerning question number seven(07), the results reveal that the majority of patients claimed that they were never asked by doctors about their financial situation. which means that the doctor does not care about the patient's financial situation before providing medical analysis. However, a few of the participants confirmed that they were always asked about their financial situation by the doctors, which means that some doctors try to figure out the conditions of their patients to build trust between them and break down language barriers.

According to question number eight(8), the results show that most of patients are somewhat dissatisfied with the medical examination that were received from doctors. Consequently, the patients of DrBenzerdjeb demand from doctors to improve the diagnostic method and provide high-quality of medical examination. However other were somewhat satisfied with the way health care services were provided in this hospital, which means that they appreciate the efforts made by doctors.

For question nine, which was on the effect of medical jargon on Doctor —Patient communication, the answers show that the majority of patients answered by yes which means that they agreed that medical jargon effect their communication with doctors. Thus, medical jargon hinders understanding of their health status. However, few patients reported that medical jargon does not influence their communication with doctors, and that might be

due to their knowledge and familiarity with medical jargon or being among an intellectual class.

According to question number ten (10), the results show that some patients pointed out that their level of communication with doctors in healthcare during covid-19 pandemic was good. However, most of the patients are unsatisfactory by their level of communication. The findings show that covid-19 created difficulties in effective doctor-patient communication and was one of the most barriers between patients and medical practitioners.

The following question reveal that the overwhelming majority of patients had difficulties during the crisis in communicating with the doctors. They claimed that covid-19 created barriers to effective doctor patient communication such as Language differences and use of medical jargon. This means that patients face difficulties in understanding their doctors. We deduce from that patients struggle against ineffective communication, which may cause misunderstanding between patient and medical practitioners and lead to dissatisfaction among patients.

The results of the last question show that the answers of patients varied, we noticed that the majority of participants claimed that lack of communication and cultural differences are the main barriers that led to the deterioration of healthcare communication.

Concerning the second instrument which is doctors' interview, it was devoted to the doctors of Dr Benzerdjeb hospital. The findings obtained revealed that most of the doctors use French and medical jargon. They face language communication barriers with their

patients. In the first question,the researcher interviewed doctors from different specialties to guarantee obtaining diverse and sufficient information.

In the following question, doctors of Benzerdjeb hospital of Ain Temouchent are greatly experienced in their field. The longest period is more than 10 years, and the shortest one is less than 5 years. The experience of doctors matters a lot because it achieves the patients' needs.

The next question seeks to know Which language doctors use during the consultation. The majority of doctors claimed that they use both Arabic and notably French. They state that they were taught medicine in the French language over many year. so it is hard for them to use only Arabic in the work setting.

In the question number (04) doctors were asked whether they find some difficulties in dealing with a certain category of patients, or they find it easy to communicate with all patients. The results of the answers show that doctors find it difficult to deal with elderly patients and children due to health literacy. According to doctors low health literacy affects doctor-patient interaction.

The following question aimed to know whether doctors ask patient about their financial situation before giving prescriptions and tests. The results obtained revealed that most of the doctors hesitate to ask about the patient's financial budget , which means that patient's health were considered valuable .

The next question seeks to know whether the use of foreign language during the consultation could block patient communication; the majority agreed that patient usually find difficulties in understanding French. This means that French is the dominant language

of doctors' communication. In contrast, a few doctors said that the French language could not block patient communication, which means that foreign language is not an obstacle to communication by some category of patients.

In question (7), which was about asking the doctors on the effect of poor communication on patients' satisfaction. The answers show that all doctors claimed that the manner of communication make a difference to the patient's level of satisfaction. According to doctors' answers, inadequacy of communication and information resulted in misunderstanding and dissatisfaction between both parties.

The findings of the next question reveal that doctor-patient relationship was affected due to ineffective communication and misdiagnosis, which means that covid -19 led to language communication barriers from which new vocabulary has emerged.

At the final question, doctors are asked to provide some suggestions to overcome language barriers in healthcare. They have suggested plenty of ways in order to Reduce language barriers; improving the quality of interaction between patient and doctor, reducing the use of medical jargon, Providing patients with sufficient information in a simplified way, etc.

From analyzing the findings of both questionnaire and interview, the results show that the majority of doctors and patients claimed that Algerian Arabic and French are the main languages of common communication during the medical examination which make the first hypothesis correct. Furthermore, the results show that the use of French and medical jargons lead to language barriers in healthcare. Additionally, poor communication

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consider as language barriers and can hinder patient' satisfaction. Indeed, according to data collected from patients 'questionnaire and doctors' interview our three hypotheses are valid.

## 3.6 Conclusion

This chapter has dealt with the practical side of the study. We have attempted to prove the authenticity of the aforementioned hypotheses through the questionnaire and the interview. Moreover, the aim behind the raising of these two instruments was to investigate the impact of language barriers in Algerian healthcare services. Thus, the finding of this study has shown that both French and medical jargon are language barriers in healthcare. It also shows that poor communication affects doctor-patient interaction.

# **General Conclusion**

### **General Conclusion**

Communication is a fundamental prerequisite for the improvement of a connection between two parties. In the absence of such a precondition no right to effective communication could be said to exist. Poor communication in Algerian healthcare staffs is harmful in the workplace. It causes medical practitioners to expect incomplete exchanges of information. Hence, the spread of Odds and Misperceptions among patients can cause language barriers and therefore dissatisfaction with the quality of service.

The present research aims to investigate the impact of language communication barriers in Algerian healthcare services in Dr Benzerdjeb hospital of Ain Temouchent. Also it focuses on investigating the causes and effects of such barriers on doctor -patient interactions. As mentioned above, the study has taken place specifically in the city of Ain Temouchent. It addresses patients of different genders, ages and educational levels. Moreover, it has relied on two major data gathering instruments chosen particularly to achieve the intended goals, which are the questionnaire and the interview.

This research initiates with a theoretical part which includes general overview of the literature. It has dealt with defining the main concepts relating to communication and sociolinguistics notions. It further explores doctor- patient interaction. The second chapter dealt with the methodological part, it has elucidate notions related to methodology including research motivation, objective and limitations. The research was also based on two research instruments namely questionnaire and interview. The last chapter deals with the practical part which addresses data analysis and interpretation of the main findings.

In light of the results pursued by the researcher from patients' questionnaires and doctors' interview, the analyses of the findings have shown that language differences, medical jargon, cultural differences contribute in creating barriers to effective doctor - patient communication. In a certain sense, poor communication can hinder communication and generate misunderstandings between patients and the medical staff within healthcare services.

All in all, the analysis of the data indicated that the three hypotheses suggested have been confirmed that it is valid within certain limits.

At last, this research work is an opportunity to identify the most important language barriers in Algerian healthcare services. Beyond that, it investigates the challenges medical practitioner face in their daily clinical practice as a result of language communication barrier.

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## **Appendices**

## Appendix A

## Patients' Questionnaire

This questionnaire is set to gather information about the impact of language barriers in healthcare services during COVID 19 pandemic at DrBenzerdjeb Hospital of AinTemouchent for the fulfillment of a Master dissertation in Didactics and Applied Linguistics. You are kindly requested to answer the following questions . Thank you.

_	• •			·
Part one: Gene	eral Information			
1-Gender: □ l	Female   Male			
2-Age group:	Less than20□	20-35□	36-51□	More than51□
3-Level of educ	cation			
A	nalphabetic□ Prima	ary school   Pre-un	iversity□ Univ	ersity□
4-How do you	rate your use of lang	guages?		
Always□	Sometimes	□ Never□		
5- which langua	age did the doctor u	se during the consu	ltation?	
Arabic□	French	Both□		
Part Two: Det	ailed Information			
<b>1-</b> Are Doctors	in Private Healthca	are Sector more ef	ficient than the	public one at giving
adequate diagno	osis during the Covi	id-19 Pandemic?		
Public sector□		Private sector□		

2-Did the doctors a	sk you about your	financial situation	on before you v	vere given an analysis
or prescription, dur	ingcovid-19 crisis	?		
Alwa	ys□	Sometimes□		Never□
3- Did the Covid-19	9 pandemic affect t	the duration of th	ne medical exan	nination ?
Yes□	Non	]		
4-Are you satisfied	d with the examin	nation you are	receiving from	Benzerdjeb hospital
doctors?				
Very satisfied□ S	Somewhat satisfied	l□ Somew	hat dissatisfied	□ Very dissatisfied□
5-According to yo	u, can the use of	f medical jargor	n lead to ineffe	ective doctor –patient
communication?				
	Yes □		No□	
6-How do you rate	your level of con	nmunication wit	h doctors in he	althcare during Covid
_19 pandemic ?				
Excelle	ent□ C	Good□	Fair□	Poor□
7- In your opinion healthcare commun		-		to the deterioration of

## استبيان

تم إعداد هذا الاستبيان لجمع معلومات حول تأثير الحواجز اللغوية في خدمات الرعاية الصحية أثناء جائحة كوفيدفي مستشفى الدكتور بنزرجب في عين تموشنت من أجل إنجاز أطروحة ماجستير في التعليم واللغويات التطبيقية ، ويرجى منكم الإجابة على الأسئلة التالية.

شكرا على تعاونكم.

## Appendix B

## The Doctors' Interview

1-What is your specialty?
2-How long have you been a doctor?
3- Which language do you use during the consultation?
4- Which category of patients you find difficult to communicate with during covid-19?
5- Do you ask the patient about his financial situation before giving prescriptions and tests
6-Do you think that the use of foreign language during the consultation could block patient communication?
7- How poor communication can affect patient's satisfaction?

7-كيف يمكن أن يؤثر ضعف التواصل على رضا المريض؟
<ul> <li>كيف أثرت جائحة كوفيد 19 على العلاقة بين الطبيب والمريض؟</li> </ul>
9-ماذا هي الاقتراحات التي يمكن ان تقدمها للتغلب على الحواجز اللغوية في الرعاية الصحية؟

#### **Summary**

The Algeria health sector has been strongly criticized based on a lack of quality of care and on miscommunication. Apparently, COVID-19 pandemic has not led to the collapse of the health system But it served as an indication of sector fragility. The present research study is undertaken with the aim of exploring language barriers that hinder communication between patients and medical staff within healthcare services. Ultimately leading to the findings that language differences, medical jargon and cultural differences contribute in creating barriers in Algerian healthcare services. The results also reveal that poor communication generate misunderstanding during medical consultation.

**Key words:** language barriers -communication-healthcare services-language differences-medical jargon-cultural differences.

#### Résumé

Le secteur de la santé en Algérie a été fortement critiqué pour son manque de qualité des soins et ses problèmes de communication. Apparemment, la pandémie de COVID-19 n'a pas conduit à l'effondrement du système de santé, mais elle a servi d'indication de la fragilité du secteur. La présente étude de recherche est entreprise dans le but d'explorer les barrières linguistiques qui entravent la communication entre les patients et le personnel médical au sein des services de santé, ce qui conduit finalement à la conclusion que les différences de langue, le jargon médical, les différences culturelles contribuent à créer des barrières dans les services de santé algériens. Les résultats révèlent également qu'une mauvaise communication génère des malentendus lors des consultations médicales.

**Mots clés:** les barrières linguistiques- communication - des services de santé -les différences de langue- le jargon médical- les différences culturelles

### الملخص

تعرض قطاع الصحة في الجزائر لانتقادات شديدة بسبب افتقاره إلى جودة الرعاية ومشاكل الاتصال على ما يبدو ،لم تؤدي جائحة كوفيد19 إلى انهيار نظام الرعاية الصحية ، لكنه كان بمثابة مؤشر على هشاشة القطاع تم إجراء الدراسة البحثية الحالية بهدف استكشاف الحواجز اللغوية التي تعيق التواصل بين المرضى والطاقم الطبي داخل خدمات الرعاية الصحية ، مما يؤدي في النهاية إلى استنتاج مفاده أن الاختلافات في اللغة والمصطلحات الطبية والاختلافات الثقافية تساهم في خلق حواجز في الخدمات الصحية الجزائرية تظهر النتائج أيضًا أن ضعف التواصل يولد سوء فهم أثناء الاستشارات الطبية.

الكلمات المفتاحية: حو اجز اللغة-خدمات الرعابة الصحبة-الاختلافات اللغوبة-المصطلحات الطببة-الاختلافات الطببة