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**of the Requirements for a Master's Degree in Linguistics and Didactics**

**Addressing Doctor-Patient Communication**  
**Barriers in Adrar**

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## **Dedication**

This modest work is dedicated

To my dearest parents for their support and to whom I am deeply indebted.

To my dear husband for his support and understanding.

To my lovely daughters and son.

To my dear sisters and family in-laws who helped me a lot in keeping my spirits up.

**Mammeri Loubna**

## **Dedication**

I dedicate this work to my dear parents, my respectful husband "Mohamed", my beloved son "Kassem", my dear sisters and brothers, and to all other members of my family.

I owe a great debt of gratitude to my partner Loubna Mammeri.

To all my teachers from primary school to university.

To all my friends and those who helped me to accomplish this research work.

**Kelthoum Elketbi**

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## **Abstract**

Effective doctor-patient communication is a crucial measure of best practice in medicine because it is critical in insuring the right diagnoses, better outcomes, and significant increases in doctor and patient satisfaction. This study tried to identify the main barriers to effective doctor-patient communication in Adrar, where people with different linguistic backgrounds live. To this end, a qualitative method was adopted to obtain accurate results. Structured interviews were conducted with doctors and patients in different healthcare settings in Adrar. The researchers also carried out multiple sessions of participant observation. After the collected data were analysed, both statistically and descriptively, the study concluded that language barriers, persistent attitudes, low health literacy, doctors' lack of communication skills, and their working under pressure all constitute obstacles that impair doctor-patient communication in Adrar healthcare facilities.

**Key words:** effective communication, doctor-patient communication, barriers, satisfaction, healthcare.

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## Arabic Transliteration Alphabet

Arabic alphabet	transliteration	Arabic alphabet	Transliteration
ا	' , a, ā, u, ū , I, ī	ط	<u>T</u>
ب	b	ظ	<u>Dh</u>
ت	t	ع	'ā, 'a, 'ū, 'u, 'ī, 'i
ث	th	غ	Gh
ج	j	ف	F
ح	<u>h</u>	ق	Q
خ	kh	ك	K
د	d	ل	L
ذ	dh	م	M
ر	r	ن	N
ز	z	ه	H
س	s	و	w, ū
ش	sh	ي	y, ī
ص	<u>s</u>	الفتحة	ā (long) a (short)
ض	<u>d</u>	الضمة	ū (long) u (short)
		الكسرة	ī (long) I (short)

Mehria and Bedlaoui (2019)

## **List of Abbreviations**

CA: conversational analysis

CAM: complementary and alternative medicine

DPC: doctor-patient communication

EA: ethnographic analysis

HDL: high-density lipoprotein

LDL: low-density lipoprotein

P: patient

RIAS: Roter interaction analysis system

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- B Structured Questions of the Patient's Interview

## **General introduction**

### **General Introduction**

In daily communication, misunderstandings are common, but in medicine, they may contribute to severe errors, health disparities, and the gravest doctor-patient dissatisfaction. Additionally, effective communication is considered an essential element in building the doctor-patient relationship that is regarded as the art and the heart of medicine. Thus, addressing doctor-patient communication impediment is very important.

The wilaya of Adrar, which is the target of our research, has a heterogeneous population. In addition to the local people and Tuareg, people from other regions of Algeria have settled in Adrar for work and other reasons. In the Adrarian healthcare settings, doctors and patients with diverse backgrounds have to communicate with each other. We hypothesize that since most local patients are not fluent in French and doctors are mostly trained in French, doctors and patients in Adrar face communication difficulties due to such linguistic disparity. As a result, misunderstandings may arise resulting in doctors' and patients' dissatisfaction. The current study aims at identifying the real reasons behind ineffective doctor-patient communication in Adrar. In this regard, we address the following key research questions:

- Is the doctor-patient communication effective in the Adrarian medical institutions?
- If it is not, what are the reasons behind ineffective doctor-patient communication in Adrar?
- Do doctors and patients find the medical consultations satisfactory?

We suggested two hypotheses to find reliable answers to the above questions. First, misunderstanding occurs during the medical consultation in the Adrarian context. Second, language variation and the use of French and medical jargon are at the heart of ineffective doctor-patient communication. Therefore, different means of data collection were adopted in this study.

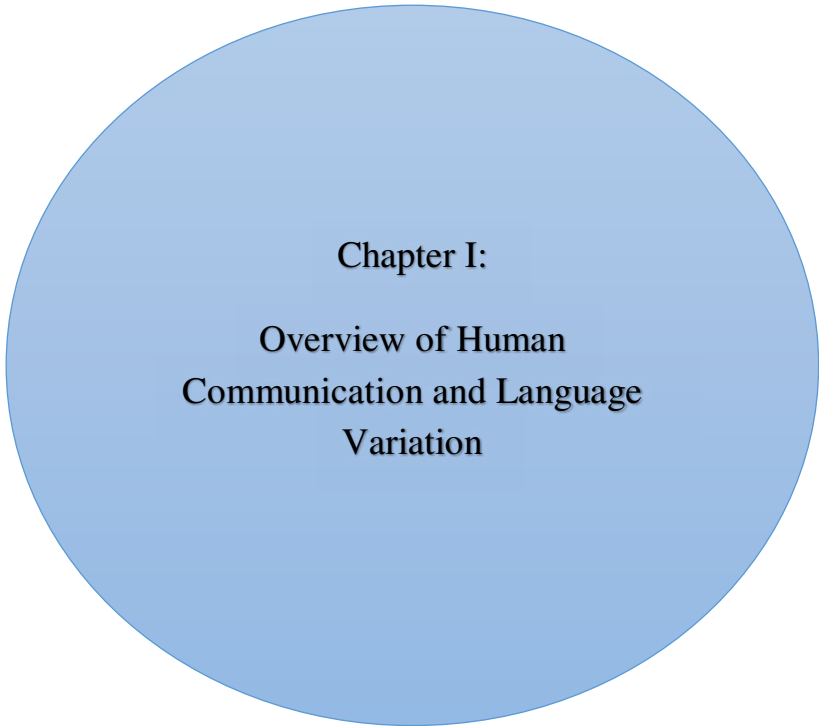
The data needed for this work were primarily collected through structured interviews conducted with doctors and patients in both public and private healthcare facilities in Adrar. Participant observation was also used to obtain a more objective understanding of the doctor-patient communication.

The current paper consists of two theoretical chapters and a practical one. The first chapter gives the reader insights into the human communication process and language variation. The second chapter introduces medical communication and the doctor-patient

## **General introduction**

relationship. It also highlights the main barriers to healthcare communication. The last chapter is devoted to the methodology underlying the case study and the analysis and discussion of the data.

What drove us to carry out this study is the lack of research that addresses doctor-patient interaction in Adrar, despite it being a significant issue that worries ordinary people. We faced some challenges and obstacles during the research process. For instance, it was difficult to gain access to doctors during the data collection process.



**Chapter I:**

**Overview of Human  
Communication and Language  
Variation**

## 1. Introduction

As human beings, no one can live in isolation without connecting with others. Communication is a vital part of our lives. It is the bridge that relates people with different backgrounds across the world. Not sharing the same language may lead to misunderstanding among communicators. This chapter has two parts. First, it introduces a literature review of communication (process, types, models, and barriers). The second part includes sociolinguistic notions related to our study. The focus is on language variation and choice.

### 1.2. The Communication Process

The word ‘communication’ is derived from the Latin word *communicare*, meaning ‘to make common’. Though numerous definitions are given to communication, ‘conveying a message’ is their common core. Finnegan (2005) states that “communication occurs when one organism (the transmitter) encodes information into a signal which passes to another organism (the receiver) which decodes the signal and is capable of responding appropriately” (p.09).

According to the Oxford Dictionary, the term ‘process’ refers to “a series of things that are done in order to achieve a particular result. ” In general, the communication process is a set of steps followed by two or more people, for exchanging information, messages, ideas, or emotions. This exchange can be done verbally or non-verbally with the requirement of different elements.

The communication process begins when the sender encodes a message and sends it to the receiver through a given medium. Reciprocally, the receiver decodes meaning from the message and uses feedback to respond. Giving feedback is the ultimate marker for effective communication (Wood, 2010). During the communication process, several problems may arise and cause the failure of a message being received as intended by the source.

### 1.3. Types of Communication

The communication types are classified based on different criteria. In our study, we shed light only on intrapersonal and interpersonal communication.

### 1.3.1. Intrapersonal Communication

It can be defined as communication with oneself. It takes place within the individual either loudly or via thoughts. For instance, when someone reminds himself to do something or to develop ideas, he engages in self-talk or thinking. Thus, the internal stimulus inside us is the primary guide for us to do what we want. For instance, due to our internal stimulus, we decide what food we want to eat. This type of communication is objective because the person involved is both encoder and decoder to the same message (Wood, 2009). In addition to that, intrapersonal communication plays a major role in helping people to reach social adjustment and build social interaction. As an illustration, before passing a job interview the candidate may engage in self-talk to humble stress. On the other hand, though intrapersonal communication has an essential role in human lives, in reality, it is quite noticeable that it is not a preferable topic of study. It has thus provided a lesser amount of formal study (Pearson et al., 2011).

### 1.3.2. Interpersonal Communication

Unlike intrapersonal one, interpersonal communication has to do with the interaction between two or more individuals. Morreale, Spitzberg, and Barge (2007) state that “interpersonal communication is the process of using messages to generate meaning between at least two people in a situation that allows mutual opportunities for both speaking and listening” (p.134). On the other hand, Hartley (1999) notes that interpersonal communication contains two approaches. First, the arrow approach, where communication takes only one way, and the sender is viewed as the major skiller. Second, the circuit approach in which communication is bidirectional with active communicators. In simple terms, it is defined in various ways by numerous scholars according to some criteria that distinguish it from other communication types such as:

- Number of participants;
- The relationship between communicators;
- The medium used.

#### 1.3.2.1 Non-verbal Communication

The study of non-verbal communication dates back to the 1950s (Morreale, Spitzberg, and Barge, 2007). One of the most active scholars in this topic was Ray

Birdwhistell, who introduces the term 'kinesics' in his paper "Introduction to kinesics" in 1952. Later on, "Non-verbal communication", was first introduced as a phrase in 1955 by Hewes in his paper "World Distribution of Certain Postural Habits" (Calero, 2005).

Non-verbal communication refers to the act of sending and receiving messages between individuals in a variety of ways without using any words. In other words, it is the process of using wordless messages to generate meaning. Moreover, non-verbal communication includes neither word vocalizations such as inflection, nor the word sounds such as 'ah, hmn'. Many problems of misunderstanding can occur during non-verbal communication. There is no fixed rule; different codes may be used to deliver the same meaning. Equally, different meanings can be conveyed through the same code. For example, raising the right hand may mean greeting, the will to answer a question, or stopping a taxi (Pearson et al., 2011).

### **1.3.2.2. Verbal Communication**

Communication is not only meant for human beings. Animals communicate with each other too. Hartley (1999) argues that verbal communication is an interesting feature, which characterizes only human beings. It is the sharing of information between individuals either orally by using sounds, words, and speech or in written form through letters, reports, emails, and books. Thus, the communicators may interact face to face, or distantly, over a short, or long term period.

Its role in human lives is salient and makes it a preferable field of study for many scholars. Misunderstanding can not be ignored in verbal communication as it usually results in a breakdown of the process.

### **1.4. Models of Communication**

The term 'model' has several meanings. Hill et al. (2007) state that "Models are about identifying the elements of a process and then suggesting how, through connection, they work in a generalized way" (p.06). Before 1948, communication was the interest of the engineering discipline only (Foulger, 2004). However, after that time, many scholars from different disciplines have started doing research about communication. As a result, separate models were set up to explicate how the communication process works (Fiske, 1990).

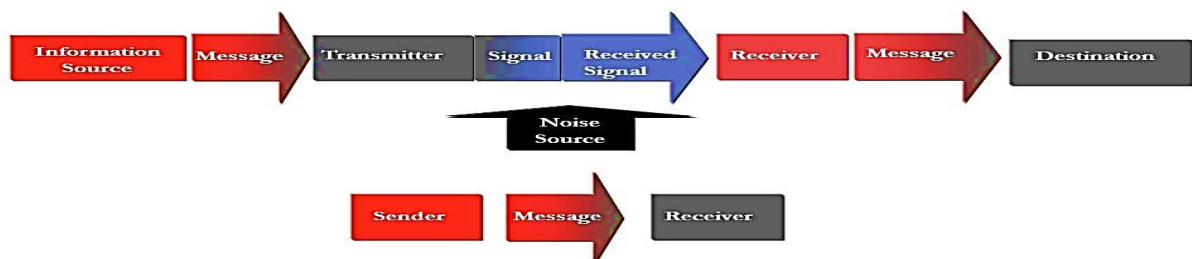
### 1.4.1. The Linear Model

Also called ‘action’ or ‘transmission’ model, it was first introduced by the American political scientist Laswell in 1948. According to this model, communication is a unidirectional process. To describe how the communication process works, Laswell suggests some questions (who is the sender, what does he encode, through which medium, to whom, with what impact) (Wood, 2009).

Shannon and Weaver (1949) extended the model by adding a new element, which is noise (Figure 1.1). Based on this model, the communication process is started by the sender who encodes a message and sends it to the receiver through a medium with the presence of noise sometimes. Indeed, this model focuses on the transmitter rather than the receiver. In other words, besides the inclusion of the receiver in the process, he is still regarded as a passive consumer of the delivered information and an endpoint of the process (Wood, 2009).

In addition to that, this model is considered as an objective model, assuming that the meaning shared is understood for both participants (sender and receiver) as it is intended (Leeuwis and Van, 2004).

However, the absence of feedback, which is considered as a central element of the communication act, makes this model a very limited one. Consequently, scholars highly criticize this model, and agree that it is particularly suitable for the emerging technology at that time, such as telegraphy, radio, telephone, and television (Foulger, 2004).



**Figure 1.1: Linear Model of Communication** (Wood, 2009)

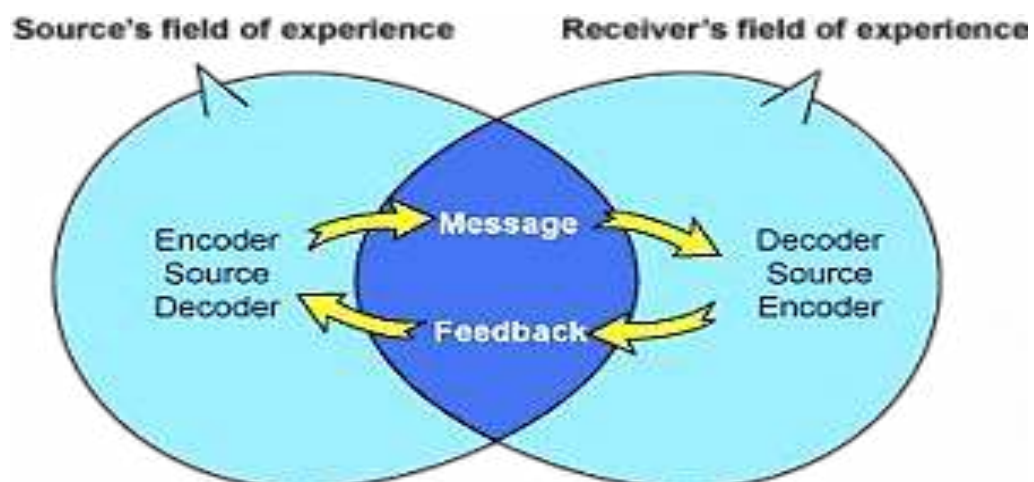
### 1.4.2. The Interactive Model

The main defect of the linear model is that communication is assumed as a one-way process. It implies that the sender only speaks without listening and the receiver only absorbs information without sending any message (Wood, 2009).

Deducing that the receiver reacts to the transmitter as well as the transmitter listens to the receiver motivated the researchers in the communication field to introduce a new model including feedback. The interactive model has its roots in the Shannon and Weaver model, but it added feedback given by the receiver either verbally or non-verbally.

According to Leeuwis and Van (2004), the communication process in this model is bidirectional and usually related to two persons and group communication. It is also called the subjective model, assuming that the sender and the receiver understand information in different forms. Contrary to the linear model, this model focuses on the communication process itself and gives less interest to the message. In fact, this model assumes that many messages are encoded at the same time that several of them might not be even decoded. Likewise, unintentional messages may be generated. Thus, the effectiveness of communication, according to this model can not be evaluated on whether or not one message is sent and received as it is intended (Wood, 2010).

Consequently, communication is perceived as a dynamic process according to this model because of the nature of the relational relationship between the sender and the receiver where they reciprocally play both functions of encoding and decoding messages. (Figure 1.2)



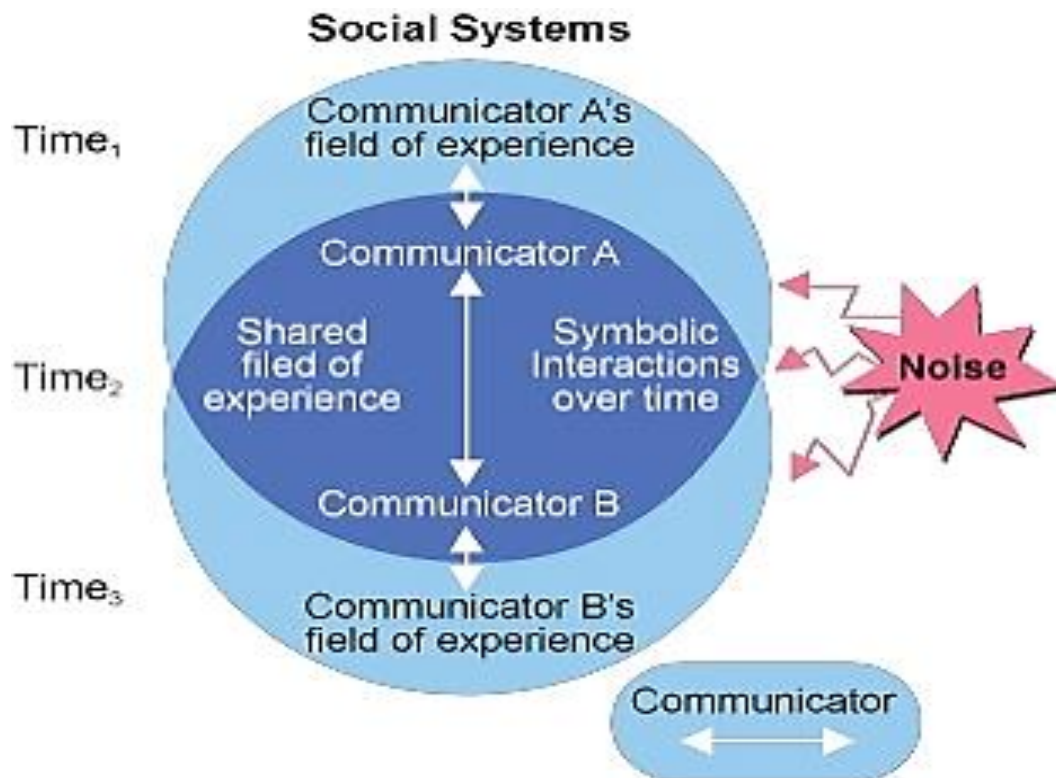
**Figure 1.2: The Interactive Model of Communication** (Wood, 2009)

### 1.4.3. The Transactional Model

Unlike the previous models, in this model, the communication process is seen as a circle. It suggests that communication influences all the involved elements (Figure 1.3). The participants in the communication process, according to this model, are taking part in sending and receiving messages simultaneously and equally, not merely sending or receiving (Alder and Rodman, 2006). Moreover, it views the elements of communication as interdependent rather than independent. This means that each element has a correlation with the other one. The changes in any component lead to the change of the others. For instance, there can be no encoder without a decoder and no information without an encoder. The noise may distort the flow of the message at any stage of the process. Another important factor that marks the transactional model is time, which means that people's interaction is managed by time and changes over time. For instance, when people meet each other for the first time, their relations seem limited. However, being met for several times, makes these relations more developed, formal or intimate.

In addition, the transactional model of communication happens within systems that adjust who and what a person communicates. These systems are shared either among participants (e.g., religion, country, city, and workplace) or personal systems (e.g., family, friends).

In short, the transactional model means that communication is an ongoing and continuously changing act. Therefore, it switches both words 'sender' and 'receiver' to 'communicator'. So, at a given moment a communicator may encode a message, decode it or play both roles simultaneously at the same time (Wood, 2010).



**Figure 1.3: The Transactional Model of Communication** (Wood, 2010)

## 1.5. Communication Barriers

At any stage of the communication process barriers may occur. They may lead to misunderstanding, confusion, and as a result render communication less effective in reaching the intended goals. There are varieties of barriers that constrain communication.

### 1.5.1 Physical Barriers

There is no doubt that communication takes place within an environment, which is not exempt from the different forms of noises that distract the communication process. In healthcare settings, the environment can handicap the flow of the message among communicators. For example, during a consultation, a noisy, unhygienic, poorly equipped hospital room influences a doctor's and a patient's mood alike.

Another physical barrier to doctor-patient communication is the shortage of time. Pendleton, et al. (2003) state that a certain amount of time is required for good medical care. Sometimes patients do not understand the medical terminology used by doctors and leave without asking for clarification due to the time constraints.

**1.5.2 Linguistic Barriers**

There are several linguistic barriers that hamper the communication process. One of the most noticeable linguistic obstacles is the absence of a common language. This diversity is due to the educational, social, or geographical factors and can create barriers for communicators. Both communication and language are two building blocks of human interaction. According to Woodak and Koller (2008), people cannot communicate if they are linguistically incomprehensible. The ambiguity of words and expressions prevents likewise the message from being interpreted as intended. The same word may convey different meanings. Thus, the use of alternatives is required to avoid this problem.

Additionally, people's linguistic ability is an important dimension of communication. Inappropriate, difficult words may prevent communicators from understanding each other. The linguistic impairments may also serve as a barrier during an interaction.

**1.6 Language Variation and Choice**

Since people are not static and move from one place to another, their languages change over time. There are different factors that lead to language variation, which are people's backgrounds, situation, participant, the function of interaction, and topics of conversation. Therefore, while communicating, people adjust their language and select their words to avoid the occurrence of misunderstanding and miscommunication.

**1.6.1 Language**

Humans use utterances, gestures, signs, and words to communicate with each other and to express feelings, emotions, and thoughts. This practice is called "language".

Language can be defined as a way of transmitting knowledge from one person to another. Sapir (1921) believes that "Language is a purely human and non-instinctive method of communicating ideas, emotions, and desires by means of voluntarily produced symbols" (p. 52).

Goldstein and Machor (2008) state that language is expressing feelings, ideas, experiences, and thoughts using symbols and sounds to communicate. A human may express his ideas and beliefs using sounds of language. For instance, when a doctor says to a patient

“tell me what you feel after having that medicine”, the doctor wants to know if the patient is cured or not.

Block and Treger (1942) view language as a system by which a social group cooperates using arbitrary vocal symbols. Moreover, when a group of people interacts with each other using vocal symbols, they rise to effective communication. An example is in a classroom when the teacher explains the lesson, delivers his message and arrives at his objective and his students understand, participate, interact and communicate with him.

### **1.6.2 Language Variation**

The concept of language variation is vital in sociolinguistics. Due to different factors, people’s languages varies on individual, regional, national, and global levels. For example, in Algeria, the speaker may use /weld/, /ʔfel/, or /baz/ for a little boy and these sets are called variables. Lianas, Mully, and Stockwell (2007) note that variables are sometimes used as means of structuring discourse such as organizing conversational terms.

Hudson (1996) notes that "Language variation refers to regional, contextual and social differences in the ways that a particular language is used. The variation between languages, dialects, and speakers is known as interspeaker variation" (p.23).

### **1.6.3 Dialect**

A dialect is a variety of language that differs from other varieties in terms of grammar, lexicon, and phonology and has its geographical area or social class. According to Drawns (1998) "Dialect refers to a variety of language that is identified geographically or socially by certain vocabulary or grammatical features; spoken forms of dialect often associated with a distinctive pronunciation (accent)" (p.20). Dialects spread and differ from one region to another and one society to another; for example, the English language has many dialects in the world, some of those dialects are British English, American English, Australian English etc.

Edwards (2009) sees dialect as a variety of language that differs from others along three dimensions: vocabulary, grammar, and pronunciation (accent). A dialect is a distinctive form of language because the speaker has a particular way of speaking which can be urban

or rural, standard or non-standard. We can say dialects are varieties of a language and every language has its dialects. Haugen (1966) says that "every dialect is a language, but not every language is a dialect" (p.99).

The dialect can be divided into two types: regional and social.

### **a. Regional Dialect**

It is dialect limited by geographical growth in some aspects such as grammar, lexis, and pronunciation. For instance, the Adrarian dialect or what is referred to as /tuwa:tijja/ according to Bouhania (2012) is different from the Oranian dialect in terms of pronunciation because of the distance between the two cities. Regional dialects as Mackay and Hornberger (1996) point out are "varieties of language which are spoken in different geographical areas among the oldest traditions in the systematic study of intralanguage variation; its roots are in the study of nineteenth-century historical-comparative linguistics" (p.154).

Hudson (1996) says people take their dialects with them when they move from one place to another. As a result, a diversity of dialects may exist within the same community due to the geographical mobility.

### **b. Social dialect**

Unlike, the regional dialect which is governed with geographical boundaries, the social dialect is a variety of language spoken by members of a particular social group. Social dialect is defined as "[a] variety or dialect which is thought of as being related to its speaker's social background rather than the geographical background. As a result, social class is a form of sociolect" (Trudgill, 1990 as cited in Lewandowski, 2010, p. 61).

Social variation in language might be considered in a variety of dimensions which are different among speakers in matter of gender, social class, network, race or ethnicity, and age as McKay and Hornberger (1996) believe. Social dialect is one form of language spoken by a specific social community; whereas, a regional dialect is a distinct form of language spoken in a certain geographical area.

### 1.6.4 Register

It is a variety of language used for a particular purpose in a particular communicative situation. People are not static, they adapt their language according to situation, context and for specific needs, which forms a register. For example, in healthcare settings, when a doctor says to a patient “you have diabetes you must take insulin”, we deduce here the register of medicine. Romaine (1994) states that “the concept of a register is typically concerned with variation in language conditioned by uses rather than users and involves consideration of the situation or context of use, the purpose, subject matter, and content of message, and the relationship between participants” (p.21).

According to Wardhaugh (2006) registers “are sets of language items associated with discrete occupational or social groups” (p.52). For examples, doctors, pilots and judges employ different registers.

### 1.6.5 Jargon

It refers to special words and phrases used by particular groups of people, that is, their technical terms. In other words, jargon is the specialized language of a professional group. It allows its users to quickly and easily express themselves without having to spend much time understanding and describing their meanings. Jargon makes the communication effective for the in-group members; however, it is difficult for non-members to understand it. For instance, in medicine, the term “agonal” is used to refer to a significant, negative change in the condition of a patient. According to Harindintwari (as cited in Verlag 2017) the term jargon refers to “a special language created by members of a given social or professional group for their specific purpose, either to mark their identity or to exclude outsiders.”

### 1.6.6 Domain

A domain of language involves typical interaction between typical participants in typical settings about a typical topic. The use of a particular speech in some settings for discussing a given topic can create different domains; for example, one language might be the language of home, when the members of the family discuss informally domestic matters. Whereas another style might be used inside the home, or outside the home when a stranger is present or when changing the topic being discussed.

A domain is considered as an area of human activity using a particular speech variety in social situations like topic, place, and role-relationship. Romaine defines domain as "abstraction of a sphere of activity that deals with a specific setting, times and relationships" (1994, 44). Romaine also added that domain changes from one area to another according to settings, and the relationship between people who use a particular language.

## 1.7 Language Choice

People choose the language, the topic, content, setting, context, relationship, and time when they want to communicate; as a result, they contribute to linguistics diversity. Romaine states that "Language choice is the selection of one variety of one language over another and speaker chooses the person or the group which he wants to be with. Not all societies are organized in the same way so language choice is not arbitrary" (1994, 35). For instance, in Algeria students are taught English, French, Berber, and standard Arabic at school, but their mother tongue is Algerian Arabic. However, the use of more than one language or variety while communicating is a common phenomenon in Algeria. So, speakers choose the variety which is appropriate with their addresser, the location, and the topic to be discussed.

### 1.7.1 Code switching

Code switching is a phenomenon in which a speaker of a given language uses two or more codes in his speech; this can be found in bilingual or multilingual speech communities. The speaker who knows two languages sometimes switches in his conversation between two languages, dialects, or varieties to complete his speech and get the meaning of a given idea.

Code switching can be defined as the use of more than one linguistic variety in manner consistent with syntax and phonology of each variety. Gumperz (1982) views code switching as "the juxtaposition within the same exchange of passages of speech belonging to two different grammatical systems or sub-systems" (p.110). Hymes (1982) highlights code switching as using two or more languages or varieties or even speech styles in one's community.

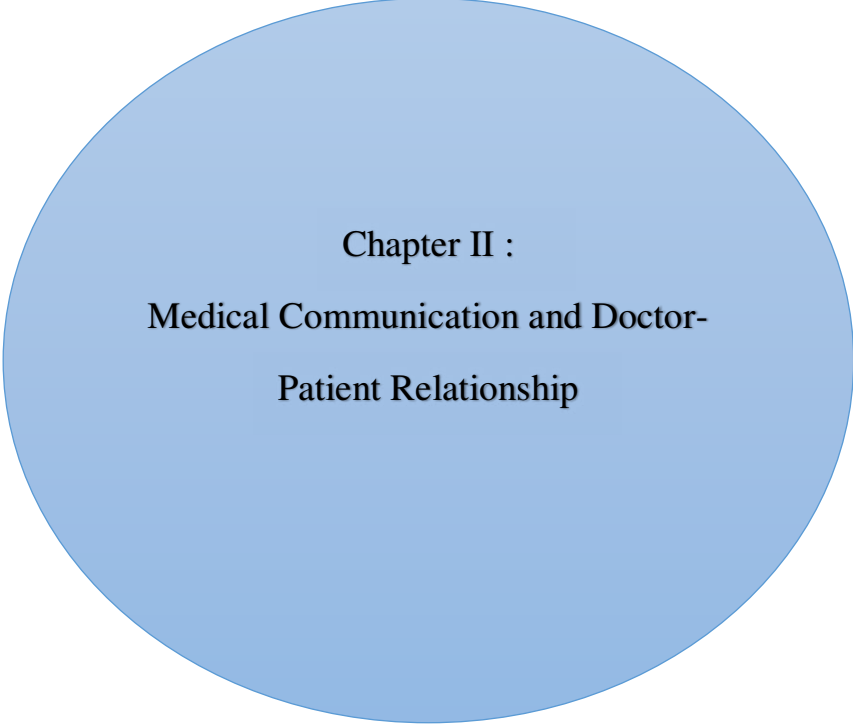
In Algeria, we can notice a lot of people code switch between Arabic and French and it is a common phenomenon because of the impact of colonization. As a result, Algeria is known as bilingual country and French is used almost in every domain. For instance, many French words such as *bonjour*, *pour quoi*, *table*, *d'accord* are used in Algerian daily talk.

### **1.7.2 Linguistic Repertoire**

Finnegan (2004) defines linguistic repertoire as "the set of language varieties used in the speaking and writing practices of a speech community" (p.98). In other words, the linguistic repertoire includes all varieties of language that exist within a speech community. Based on the languages used by community members, the linguistic repertoire may comprise several languages. Moreover, speakers' linguistic repertoire varied according to the languages that they mastered.

### **1.8 Conclusion**

This chapter included a general view of the communication process, its types, modals, and some barriers to effective communication. Besides, it introduced a sociolinguistic overview of language variation. It focused on explaining some concepts and terminology that are necessary for understanding the coming chapters.



**Chapter II :**  
**Medical Communication and Doctor-**  
**Patient Relationship**

## **2.1 Introduction**

Communication is an integrated part of medical care. In a health care setting, many people interact with each other either as a medical team or a patient. Effective communication is essential for ensuring the quality of care and patient satisfaction. Therefore, medical communication has long been regarded as a preferable area of researchers from different fields. Focus is mostly on the doctor-patient relationship because it is considered as a broad marker of better outcomes. In this light, the focal points of this chapter are the historical background of medical communication, the doctor-patient relationship and health communication types and barriers. Then we conclude with the methods of doctor-patient communication research.

## **2.2 Medical Communication**

The roots of medical communication can be traced back to the 1950s. At that time, there were many starting points in the development of the field of health communication. Sociologists, anthropologists, and psychologists have regularly deemed medical communication as a substantial topic of their disciplines (Simpson, 2011).

One important starting point in medical communication was Parsans' theoretical work (1950), "The Social System," which includes a chapter about the doctor-patient relationship. By adopting the functionalist perspective, Parsan treats this relation as a social system and has concentrated on the patient's role toward doctors' medical instructions.

Bale in 1950 developed a process analysis, which addressed only the patient's needs and neglected the doctor's side. The deficiency of this approach motivated researchers to develop it and adjust it to cover the contents of physician-patient interaction and to make the interaction dyadic between them. Later, Roter and his colleagues developed the Roter interaction analysis system (RIAS), followed by the anthropological social microanalysis approach, which aims to focus on the microanalysis of medical discourse. Hughes' work in 1963 is a salient example of adopting such an approach (Heritage and Maynard, 2006).

In 1957, Balin introduced the psychosocial element into patients' obstacles. He highlighted the importance of listening skills and the language used in enhancing medical practice. Additionally, several reviews of literature were concerned with professional-patient relationships, such as the therapeutic nature of the doctor-patient relationship ( Balint, 1957);

consultation activities and doctors' consulting behavior (Byrne and Long, 1976); the concept of biopsychosocial medicine (Engel, 1977); ethnographic observation of healthcare settings (e.g., Sudnow 1967) (Simposon, 2011).

The first detailed research on the structure and delivery of healthcare was conducted by Byrne and Long in 1976 (Gwyn, 2002). They suggested that the clinical encounter is composed of six phases, which are:

- a. Relating to the patients;
- b. Discovering the reasons for attendance;
- c. Conducting a verbal or physical examination or both;
- d. Consideration of the patient's condition;
- e. Detailing treatment of further investigation;
- f. Terminating.

Following researches were based on this standard model (Gwyn, 2002).

### **2.3 Main Current Issues**

By the 1980s, many commentaries were raised in several works concerning medical communication particularly for a doctor-patient relationship (Sarangi and Roberts, 1999). Researchers also claim the dominance of the conflict of voices in the consulting room, assuming that the severe reason behind this fact is the exercise of the physician's power. Consequently, medical communication has become a field of study in its own right. Similarly, the doctor-patient relationship witnessed a noticeable shift, where hierarchies are reduced, and notions such as "decision-making" and "empowerment" have become common currency.

### **2.4 Doctor-Patient Relationship**

There is a general agreement that the doctor-patient relationship is built on trust. Once the trust is established, the ground becomes paved to the relationship to be crafted and the therapeutic goals to be achieved. During the medical visit, the doctor and patient engage in conversation by using verbal and non-verbal cues. According to Roter and Hall (2006), the main ingredients of medical care are the talk and the expert knowledge of both participants. While the doctor is an expert on diagnosis, negotiation of the treatment, the patient is equally expert in his or her background, values, experience, and intuition.

Furthermore, the patient's comprehensive history is viewed as a scaffold on which the doctor-patient relationship stands. Heritage and Maynard (2006) articulate that the patient's history does not refer only to the reasons for visiting the doctor, but also englobes patient's previous health condition, treatment currently abused, family history, social and psychosocial circumstances.

Based on the high and low control that shapes the nature of the doctor-patient relationship, Roter and Hall (2006) described four prototypical models, namely, the paternalism, consumerist, default, and mutualistic (Table 2.1).

### **2.4.1 The Paternalism Model**

The paternalism model, also known as the "doctor-centered approach," has dominated medical science for most of the twentieth century and still occupies a significant role in a medical encounter (Szasz and Hollender, 1965). The patient's role in this model is dependent and passive. Contrarily, the doctor's role is autonomous and dominant. The prospects of the relationship are that the patient is the absorbent recipient of a doctor validation policy of treatment, while the physician is forced by professional ethics not to cross his expertise sphere, to preserve emotional detachment and distance from the patient, as well as to consider the interest of the patient as a primary task (Roter and Hall, 2006).

The advantages of the doctor-centered approach are that the patient and his family need not tantalize over decision-making, and the doctor's control is dominant. In contrast, the fundamental issue within this approach is that the patient is entirely excluded from the decision.

### **2.4.2 The Consumerism Model**

Contrary to the paternalism model, the consumerism model focuses on patients' rights and doctors' obligations. Shifting away from the doctor's instruction, and the patient's complying, resulted in adopting the patient-centered approach in the late twentieth century. Hence, the doctor's authority is restricted by reversing the dominant power of the relationship. As noted by Haug and Lavin (1983), the patient is viewed as a consumer, who partakes in decision-making when an obstruction shapes the diagnosis and the adherence of the treatment. The physician's underlying medical task is then to inform patients about their treatment options in an adequate manner.

A benefit of this model is that the doctor serves the patient by a different range of treatment options. Whereas, the patient becomes exposed to negotiate in a domain that he cannot master without guidance.

### **2.4.3 The Default Model**

This model is characterized by a failure of control on either side. Neither the doctor nor the patient takes the challenge in decision-making. Thus, the mutual negotiation is absent, and a state of stagnation arises. For Berry (2007), it is clear that this model is far from the ideal of a doctor-patient relationship. Levinson and Roter (1993) state that this model is characterized by unclear shared purposes and an uncertain doctor role. Roter and Hall (2006), on the other hand, argue that this type of doctor-patient relationship is shaped by dysfunctional standstill, ambiguous goals, odds expectations, and absence of negotiation from both parties. As a result, the patient may withdraw from the caring process, without any awareness from the doctor's side about the reasons behind such actions. The doctor may also receive a malpractice complaint.

Experts in malpractice have concluded that what occurs during a consultation, and the kinds of relationships that are established are critical in setting the stage for the patient's subsequent reaction if there are problems in treatment (Levinson et al., 1997).

### **2.4.4 The Mutuality Model**

The relationship-centered approach is advocated as the best type of doctor-patient relationship. This model aims to harmonize the different poles of the paternalism and the consumerism model. The main characteristic of this model is the existence of balanced power and control and the share of decision-making between the interlocutors. Indeed, both participants collaborate in a mutually respectful manner with their bilateral knowledge during the interaction. Quill and Brody (cited in Anne 1994) say that the importance of this model is that it permits the doctor to perceive, to support, and to involve the patient in the decision-making without exercising any power. This beneficence is quite evident in the case of patients with chronic diseases, where the treatment is carried out continuously.

		Physician Control	
		Low	High
Patient Control	Low	Default	Paternalism
	High	Consumerism	Mutuality

**Table 2.1: Types of Doctor-Patient Relations** (Roter and Hall, 2006)

## 2.5 Doctor-Patient Communication

### 2.5.1 Oral Communication

During a consultation, the doctor and patient engage in a conversation from taking the patient's medical history until the conveying of the treatment. As much as the doctor asks questions, the diagnosis circle becomes narrower. The questions asked by the doctor can be "closed" (e.g., how long have you had the pain), or "open" (e.g., tell me about your pain). Achieving better healthcare service requires a good listening from the part of the doctor because it gives the patient confidence and motivates him to speak (Rowland and Carrol, 1990).

Engel (1990) states that many patients complain about doctor's unwillingness to listen to them during the consultation. He also added that doctors should devote more time to patients to speak, instead of manipulating them as an inanimate object being analyzed by a computer. Another critical factor that is at the heart of effective doctor-patient interaction is demonstrating empathy (Squier, 1990; Karp, 2011).

### 2.5.2 Written Communication

In all levels of healthcare, written communication can be remarked in different forms such as the patient's medical file, instructions to patients, prescription, referral letter, etc. It has a significant role in ensuring better care. For Vermeir et al. (2015), written

communication can serve as a reference during the whole curing process. For instance, for inpatients, the medical file helps the medical team to know the illness that the patient suffers from and the treatment plan that is carried out. On the other hand, the medical documents must be well and carefully written, well organized, and fully completed to avoid any errors that can lead to catastrophic consequences. For example, the doctor should prescribe in clear writing that any chemist can skim because many drugs have similar names. For instance, the drug "Almax" is prescribed to patients who have panic disorders and anxiety disorders caused by depression, whereas "Almox" is an antibiotic prescribed to treat different types of infection.

### **2.5.3 Telemedicine**

The advance of technology and the spread of the internet and media have dramatically changed human life, especially communication. For healthcare, this revolution gave birth to the emergence of a new option named telemedicine. It is also called "telehealth" and defined by the American Institute of Medicine as "the use of electronic and communication technologies to provide and support health care when distances separate the participants." Electronic methods such as telephone, email, fax machine, radio, and social media accounts have enhanced doctor-patient communication in many ways. For instance, it enables them to discuss subjects, and make an appointment without crossing distances. The American founder of the Center of Connected Health Provide Long-Distance Care of Patients, Dr. Kvedar states that the purpose of telemedicine is "to bring care to the patient where the patient is and when the patient needs it." (cited in Finn and Bria, 2009).

Despite the beneficial role of telehealth in advancing the efficiency of health care delivery, it is still a matter of controversy. While some doctors argue that the use of the phone and email is crucial and saves them time when addressing their patients, especially for people with chronic diseases, others claim that the phone and email can be time-consuming and frustrating for doctors and patients. Additionally, doctors fear they will be overwhelmed by the number of emails and online consultations that are not currently reimbursed. Also, there is a risk of not addressing the concerned person (Finn and Bria, 2009).

## 2.6 Barriers to Healthcare Communication

Effective communication is at the heart of medicine. Nevertheless, different barriers can hinder it. As a result, the smooth running of the curing process can be affected. The most common barriers are:

### 2.6.1 Language

Each language has its proper characteristics and reflects the society largely. When people break the semantic or the pragmatic rule of a language, this could be an obstacle to communication. Linguistically diverse people have several opportunities for communication breakdown. The use of technical language or jargon can be an effective and efficient aid of a medical team, but it can also be a significant contributor to patient dissatisfaction (Hills, 2014).

Furthermore, according to Pearson et al., (2011), the regionalisms, which are phrases or words specific to a particular part of a country or region, may lead to confusion and handicap of the communication process. For instance, diabetes is named '*Sakr*' in Adrar, whereas it is called '*hluwa*' in Oran. So, if a doctor from Oran, who works in Adrar, says to an Adrarian patient that you have *hluwa*, the patient may not understand him.

### 2.6.2 Health Literacy

The origin of health literacy is rooted in the national literacy movement in India under Gandhi to help people working in Africa to promote education and health ( Ratzan,2001,as cited in Kopera-Frye, 2017) . It was first used in 1974 and defined as "health education meeting minimal standards for all school grade levels" ( Ratzan,2001,as cited in Kopera-Frye, 2017, p.1). From that time, many definitions are used to describe health literacy. Though they have some distinction, they still share a common center, which is the involvement of the needs of individuals to understand information that aids them in maintaining good health (Harnandz, 2013).

Typically, not all patients do absorb the information given to them by their doctors. The lack of health literacy and the absence of basic health knowledge are at the heart of this misunderstanding and can have severe consequences on the caring and curing process.

Thomas (2006) argues that health literacy has become a noticeable barrier to health communication.

### **2.6.3 Culture**

People are influenced by the rules, customs, beliefs, and traditions of the culture where they grow up. Any doctor-patient interaction takes place within a culture rather than a vacuum. When they are communicating, each of them brings his cultural background. This diversity may lead to a state of anger if it is ignored or violated. Thus, many scholars cite culture as a barrier to establishing an effective and satisfactory doctor-patient relationship.

For Tebble (1998), doctor's and patient's assumptions and attitudes may handicap the communication process resulting in misunderstanding. For instance, people have hugely different attitudes and beliefs toward diseases. For example, the names and reasons for diseases are handled differently from one culture to another. Some diseases are supposed to be caused by ghosts and spirits and are referred to by bizarre names.

## **2.7 Approaches to Doctor-Patient Communication Research**

To understand the nature of doctor-patient communication and the interaction between them, researchers use different approaches. The main ones are:

### **2.7.1 Conversation Analysis**

It is an approach to study social interaction regarding the language used in everyday life situations. Robinson (2007) states that "conversation analysis (CA) represents a naturalistic and inductive approach to the study of generalizable patterns of interaction that are ultimately amenable to quantification"(p.119). Koenig and Robinson (2014) say that CA has three core assumptions: (a) talk is a form of social action, (b) analysis prioritize member's meaning, and (c) meaning-making is a product of the interaction order.

Maynard and Heritage (2005) argue that conversation analysis (CA) attempts to build a bridge between the quantitative studies of medical interviews, the ethnography, and the coding, but the medical interview is examined as an arena of naturally occurring interaction. This issue is highly studied in doctor-patient interaction and the analysis of their speech.

Maynard and Heritage (2005) gave five essential features that are important to this approach which are:

- a) Utterances as social activities
- b) Sequencing
- c) Interaction detail as a site of the organization
- d) Analysis of participant orientations
- e) Single cases and collections.

In conversation analysis, the analyst collects data and work on audio or video recordings of interactions in specific situations, and he tries to understand and interprets the sense (Given, 2008).

### **2.7.2 Ethnography**

Duranti (1997, p.85) describes ethnography as "the written description of the social organization, social activities, symbolic and material resources, and the interpretive practice characteristic of a particular group of people." In other words, ethnography is the study of how and why members of society behave. Prolonged observation and direct participation in community life; characterize the ethnographic fieldwork (Ellingson and Rawlins, 2014).

Ethnography is seen by Given (2008) as "the art of describing group or culture" (p.288). The ethnographer should first begin with a problem, a theory or model, a research design, specific data collection techniques, tools for analysis, and a particular writing style before asking a question in the field. In addition to that, Given (2008) defines ethnographic analysis (EA) as a method, technique, and procedure for locating, interviewing, and analyzing documents for their significance and meanings. It describes the context in a matter of sense between two or more variables.

The essential concepts that guide ethnographers in their fieldwork, for Given, include culture, a holistic perspective, contextualization, an emic perspective, and multiple realities, an ethic perspective, non-judgmental orientation, inter- and intracultural diversity, and symbol and ritual.

## Methods and Techniques of Ethnography

In these steps, the ethnographer tries to research within the environment to see how people behave in the real situation of life.

- a- Participant observation;
- b- Interviewing;
- c- Key actor or informant interviewing;
- d- Questionnaires;
- e- Equipment;
- f- Analysis;
- j- Unobtrusive measures;
- h- Writing;
- i- Ethics.

### 2.6.3 Interviewing

Interviewing is a method of studying people's interaction and communication to get information in a specific case or field. Cohen, Manion, and Morrison (2007) note that interviewing is a conversational practice where the interviewer interacts with the interviewee or a group of interviewees to produce knowledge. This method helps the researcher to get knowledge about a given topic by asking questions and the participant answers. Furthermore, it can be in the form of surveys, on the internet, on the telephone, or face-to-face interaction or as part of ethnographic research. Interviews can be recorded, transcribed, and analyzed to obtain their purpose.

Donovan et al. state that "interview is the cornerstone of health and medicine. Anyone who has received or provided healthcare has participated in conversation during which important information is exchanged between patient and health professional."(ed. Whaley,2014, p.21).For example, a doctor must ask the patient to know his illness or what is wrong, and the patient answers according to those questions.

### 2.7.4 Focus Group

It is a research method used for collecting qualitative data in which a group of people interact with each other, and the interviewer observes and asks questions. A well conducted focus group discussion allows the researcher to obtain a wide range of responses that results

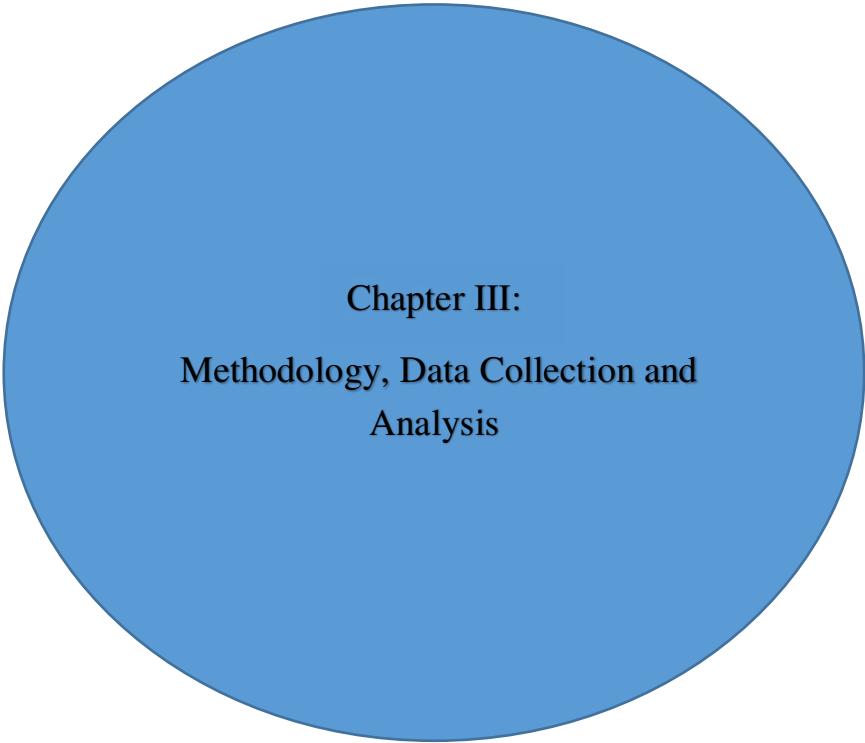
from the different experiences of the group members. It has two characteristics, which are 'composition' and 'number' or parallel focus group; some say that focus group and interviewing are the same, but they are different in many things (Dörnyei, 2007).

The purpose of a focus group is exploratory research, and the participants are free in conversation; participants who share similar backgrounds in focus groups have the opportunity to engage in meaningful discussion about the topic they like (Given, 2008).

Donovan et al. (2014) state that focus groups are semi-structured interviews that occur between people who share common characteristics, such as a type of illness, a caregiving role, or a genetic risk factor. Participants generate discussion among themselves, respond to each other, and produce data. Moreover, the focus group method contains three or six groups of eight or ten participants for each.

## **2.8 Conclusion**

In healthcare communication, the doctor-patient relationship is characterized by several key themes, which have been mentioned in this chapter. The essential points covered in this chapter are medical communication and its background, doctor-patient relationship, barriers to healthcare communication, and approaches to a doctor-patient conversation, which shed light on the process of doctor-patient communication and help in regulating it.



**Chapter III:  
Methodology, Data Collection and  
Analysis**

### 3.1 Introduction

The methodology is the backbone of any research paper. This chapter describes our data collection process, where two research instruments, namely interviews and participant observation, are used. The findings obtained are interpreted to provide an answer to the main research question, which investigates the obstacles to effective doctor-patient communication in Adrar.

### 3.2 Setting

The research was conducted in the province of Adrar, which is located in the southern west of Algeria. The commune of Adrar has a surface of 633 km<sup>2</sup> and a population of about 88721 inhabitants (Directorate of Health, Population and Hospital Reform of Adrar, 2020). The people living in Adrar are from different geographical regions and with different linguistic backgrounds.

### 3.3 Sample

Our sample was selected randomly in different healthcare settings in Adrar in both sectors, public and private. 13 doctors and 36 patients accepted to participate in our research. Three doctors read the interview in our first encounter with them, they asked us to postpone the interview to a future time; but unfortunately, the doctors were not available for the interview at a later time stating their busy schedule as an excuse. So, we did not have the chance to interview them. Some of the patients could not be interviewed because of their severe health problems. Besides, two patients could not finish the interview because their medical consultation with the doctor was due; therefore, we did not include them in our sample. The participants are from different linguistic and geographic backgrounds.

To gain some understanding of the different services that exist in the public hospitals of Adrar and to obtain permission for carrying out our research there, we went to the hospitals to meet the administrative personnel. Unfortunately, we could not reach many of them; some were in meetings while others were away. This problem pushed us to contact

doctors and patients directly to avoid wasting time. In addition, we had to use our connections in the healthcare field to convince some doctors to take part in this research.

### **3.4 Data Collection**

For answering the main research question, a qualitative research method is adopted. Two structured interviews with 18 questions each were conducted with doctors and patients in Adrar city. Moreover, three observation sessions of medical consultations took place at the clinics of Hassiba Ben Bouali and Tillilane University campuses. Glesne (2010, cited in Albirini (2016)) notes that the primary purpose behind using different methods for collecting data is to ensure the reliability of the results.

#### **3.4.1 Interviews**

The interview was selected for its flexibility and effectiveness in examining participants' backgrounds. In other words, the use of interview helps us to paraphrase and change the sequence of the questions. In addition, the inclusion of further questions may happen and encourage the participants to express their opinions and give more details.

Robson (1993) states that “face to face interviews offer the possibility of modifying one’s line of inquiry, following up interesting responses and investigating underlying motives”(p.229). Cohen, Milroy, and Gordon (2003) added that the use of the interview in collecting data allows the informants to express their ideas freely and emotionally with honesty and richness.

The interviews' duration ranged from 15 minutes to one hour and they were carried out at different moments of the day (morning, afternoon, and evening). While interviewing the informants, we took notes. We did so to offer them a comfortable atmosphere and because it was likely they would reject having their conversation recorded in a digital format. Furthermore, before carrying out the interview, we first made an appointment with each doctor. Each interview started with an explanation of the research topic and the objectives of our study.

### 3.4.2 Participant Observation

Participant observation is deemed as a robust method of data collection. Marchall and Rossman (1989) defined participant observation as “the systematic description of events, behaviors, and artifacts in the social setting chosen for the study” (p.79). Our purpose for using such method is to get in-depth information concerning the doctor-patient interaction in Adrar, such as nonverbal expressions and emotions. Furthermore, it provides us with richly detailed information. When observing, we are able to see a live doctor-patient interaction and detect subtle details that the participants are unlikely to self-report in an interview. The participant observation in this research took place in the clinics of Hassiba Ben Bouali and Tillilane University campuses in Adrar.

### 3.5 Data Analysis and Interpretation

The results obtained are analyzed and interpreted in the following sections. The data are also represented in tables, and graphs. The first section of both interviews investigate the participants’ background information. The second section is about doctor-patient interaction, and satisfaction.

#### 3.5.1 Results and Interpretation of the Doctor’s Interviews

##### 3.5.1.1 Part one: Doctors’ General Information

**Question 1:** how old are you?

Age Group	Number of Doctors
30 – 40	07
41 – 49	05
over 50	01

**Table 3.1: Doctors’ Age Groups**

As mentioned in Table 3.1, the age of the doctors ranges from 30 to over 50 years old. We asked this question because it could help us to interpret other questions. For instance, it lets us know if there is any change in the doctors’ curriculum over time.

**Question 2:** what is your specialty?

Specialty	Number of Doctors
General practitioner	07
Gynecologist and obstetrician	02
Oncologist	01
Epidemiologist	01
Physical and readaptative	01
Psychologist	01
<b>Total</b>	<b>13</b>

**Table 3.2: Doctors' Distribution According to their Specialties.**

Table 3.2 demonstrates a classification of doctors according to their specialties. Each specialist deals with a particular group of patients. For the general practitioner, we interviewed five (05) doctors, who work at different services in public hospitals. They deal with both outpatients and inpatients. We also interviewed doctors at the university campus clinic. The answers to the same question may vary according to doctor's specialty. Therefore, they will provide us with their distinct professional experiences.

**Question 3:** where are you from?

Wilaya	Number of Doctors
Adrar	05
Algiers	02
Oran	02
Blida	01
Tlemcen	01
Mascara	01
Annaba	01

**Table 3.3: Geographical Origins of Doctors**

As shown in Table 3.3 the doctors that participated in this research come from different geographical regions. Five (05) doctors are from Adrar while the others are from other regions. The geographic diversity of doctors may constitute a communication barrier due to linguistic variation.

**Question 4:** how long have you been a doctor in Adrar?

Years	Number of Doctor
04-10	05
11-13	03
20-26	05

**Table 3.4: Duration of Doctors' Service in Adrar**

Five (05) doctors are from Adrar and work in it. Seven (07) others have been doctors in Adrar for 04 to 26 years. They stated that when they moved to work in Adrar, they faced some difficulties in communication with patients due to language diversity. It took them some time to get familiar with the new expressions and terminology. These non-Adrarian doctors can understand some Adrarian words of diseases, symptoms, and organs but not all of them (see Table 3.5).

Words Used by Patients	Transliteration	Meaning in English
لكينه	lkina	Tablet
لكاشي	lkashi	drug to dissolve
دوخة	Daūkha	Dizziness
لقشوش	lqashoush	Chest
يقص	yaqlas	to vomit
روح	rwaḥ	a cold
لطسيون	latasyūn	blood pressure
لكرش الحمره	lkarsh lḥamra	bloody diarrhea
يكوي بالضو	ykwl b daw	Radiotherapy
راديو لعظم	radyū lādḥam	Scintigraphy

**Table 3.5: Local Health-related Words Used by Patients in Consultations**

**Question 5:** what languages do you master?

		Language			
		Arabic	Berber	French	English
Level	Weak	/	/	/	03
	Average	/	/	/	09
	Excellent	13	02	13	/
Total		13	02	13	12

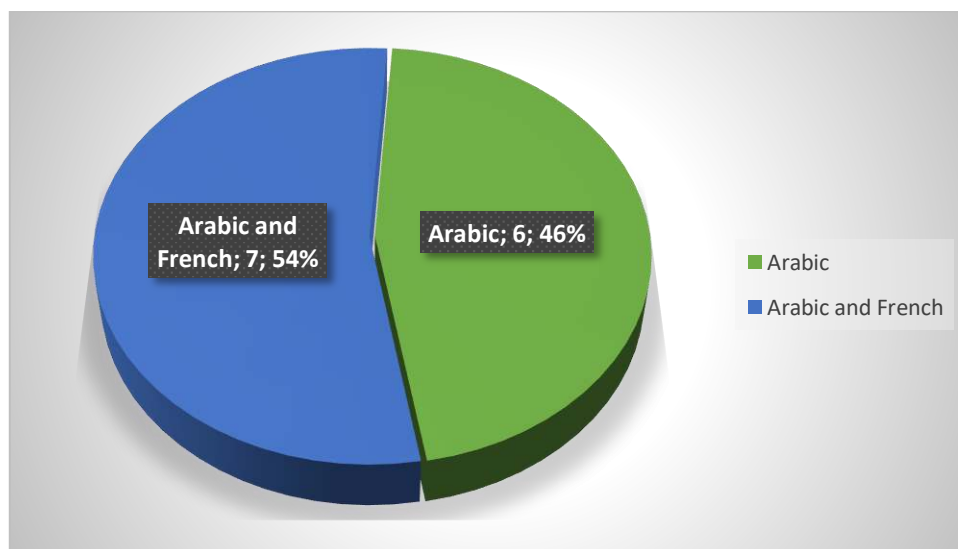
**Table 3.6: Doctors' Proficiency Level in Commonly Used Languages**

### 3.5.1.2 Part two: doctor-patient communication

**Question 6:** which language do doctors use during the consultation?

**Question 7:** do you know the names of diseases and symptoms in Arabic?

As represented in Figure 3.1, six (06) doctors said that they use the Arabic language during the consultation because it is the mother tongue of doctors and patients. For example, they said that instead of telling the patient that you have a high-density lipoprotein (HDL), they say you have *āndek shḥam shin* (bad cholesterol). For the low-density lipoprotein (LDL), they say you have *āndek shḥam zīn* (good cholesterol).

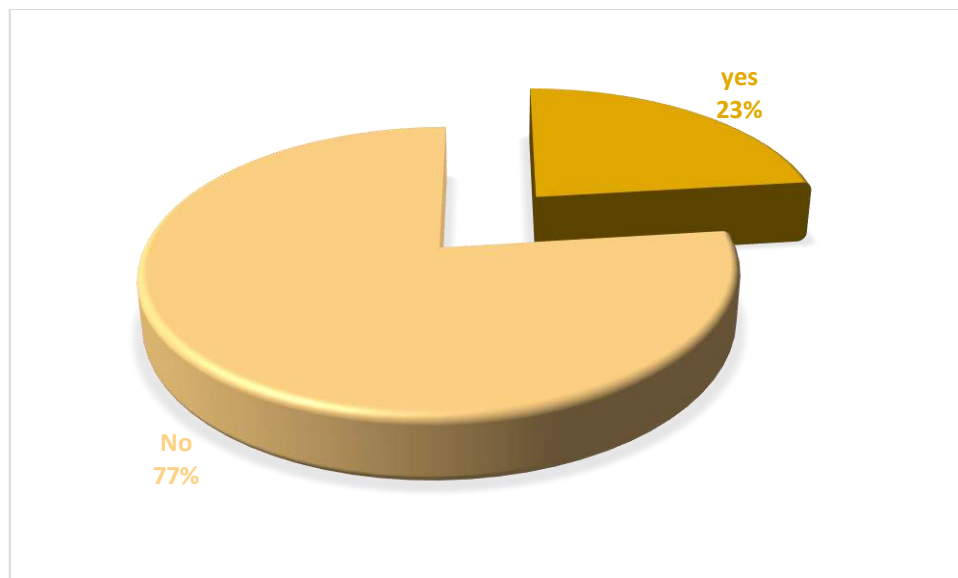


**Figure 3.1: Languages Used by Doctors during Consultation**

Seven (07) doctors justified their use of the French language during the consultation by stating that they were taught medicine in the French language, and it is difficult for them to find the equivalent of the medical terms in Arabic. They also added that Arabic does not fit sometimes. For instance, the name 'syndrome,' which is a set of symptoms that consistently occur together means 'mutazamIna' in Arabic which does not give the right meaning of its French counterpart. Additionally, doctors argue that they prefer to use French for some names instead of using their 'heavy' synonym in Arabic (e.g., waram).

Furthermore, when we asked the doctors about their familiarity with the names of diseases and symptoms in Arabic, nine (09) of them said they knew some. Four (04) doctors noted that they knew the names of diseases and symptoms in Arabic, but when we asked them to give us examples, they took a considerable amount of time to provide two or three simple words. We concluded that the doctors are more fluent in French than in Algerian Arabic or Standard Arabic when it comes to discussing medical conditions and procedures.

**Question 8:** have you been taught 'communication' as a module?



**Figure 3.2: Percentage of Doctors who Received Communication Training**

Figure 3.2 reveals that 77% of the doctors have not been taught communication as a module during their higher studies. 33% of doctors have been taught communication only as a topic in a psychological module or afterward in the training program. Doctors state that they typically acquire communication skills through experience. This explains the ineffective communication that commonly occurs between doctor and patient. For instance,

one of the patients we interviewed was a mother who accompanied her sick son to a consultation. The doctor told her during the consultation that the son needed immediate surgery; the latter became terrified and began to cry. The mother was so upset during the interview and claimed that the doctor is not skilled in communication; otherwise, he would not speak about such a subject in front of the boy.

**Questions 9- 10- 11- 12:** the assessment of the understanding among doctors and patients.

Doctors don't understand what the patients say		Do patients understand everything the doctors say?	
Yes	No	Yes	No
11	02	06	07

**Table 3.7: Doctors' Views on Understanding in Doctor-Patient Communication**

Table 3.7 presents the answers of the doctors about the accuracy of understanding in doctor-patient communication. Out of 13 doctors, 11 doctors said that there are sometimes when they do not understand what their patients say. However, 06 doctors claimed that their patients understand everything they say, whereas 07 doctors stated that patients do not understand everything doctors say. All doctors agreed that it is difficult to communicate with Tuareg people who do not speak Arabic. In this case, a translator is required to resolve the situation. Both communicators (doctors and patients) experience misunderstanding that is caused by language variation. As a result, patients return after leaving the consultation room to ask for more clarification, or they ask the nurses about what the doctors have said. For instance, the word 'health' refers to a state of complete well being. In Adrarian speech community, it refers to the whole body, and they say "sahtI tawjaänI". So the same word is used differently depending on context, which may lead to misunderstanding.

**Question 13:** which group of people are difficult to deal with?

Category	Number of Doctors
Old people	05
People with low health literacy	04
People who speak a different language	02
Children	02

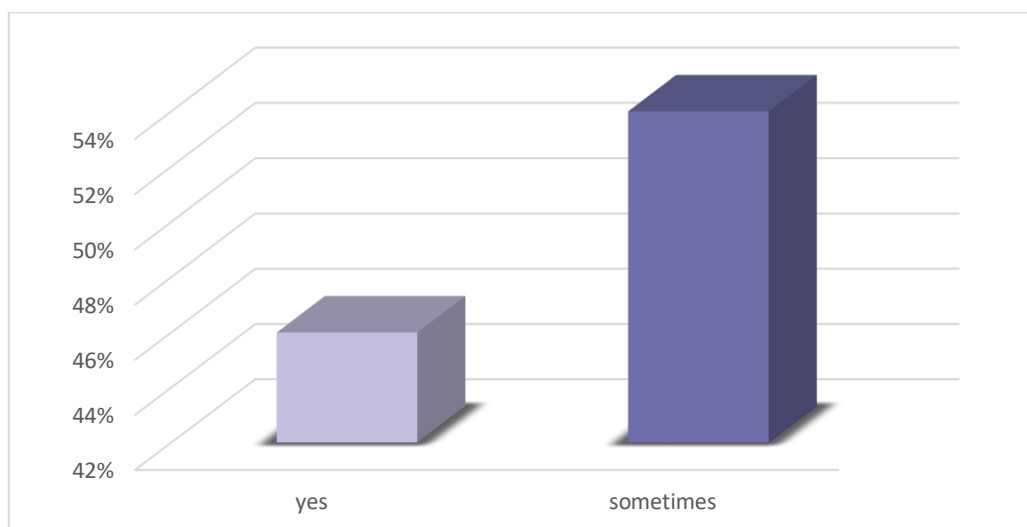
**Table3.8: Doctors' Views on Communication Efficiency with Different Types of Patients**

Table 3.8 shows the categories of patients and doctors' views on which ones are difficult to deal with. Five doctors said that it is difficult to deal with old people. Whereas, four doctors said that it is difficult to deal with people with less health literacy. Two doctors declared that they face communication problem with children who are still young and have yet to master communication skills. Two other doctors stated that they struggle to communicate with people with a different language. They also added that language is considered as a barrier to effective communication.

**Question 14:** do you use any technological medium to contact your patients?

Out of thirteen (13) physicians, seven (07) said that they use the telephone to make appointments because they have some frequent rural patients and do not want them to cross long distances just to make an appointment. Two doctors, an oncologist and a psychologist said they also use Facebook in addition to telephone to contact their patients. Six (06) doctors, in contrast, do not use any technological medium to contact their patients.

**Question 15:** do you involve patients in decision-making?

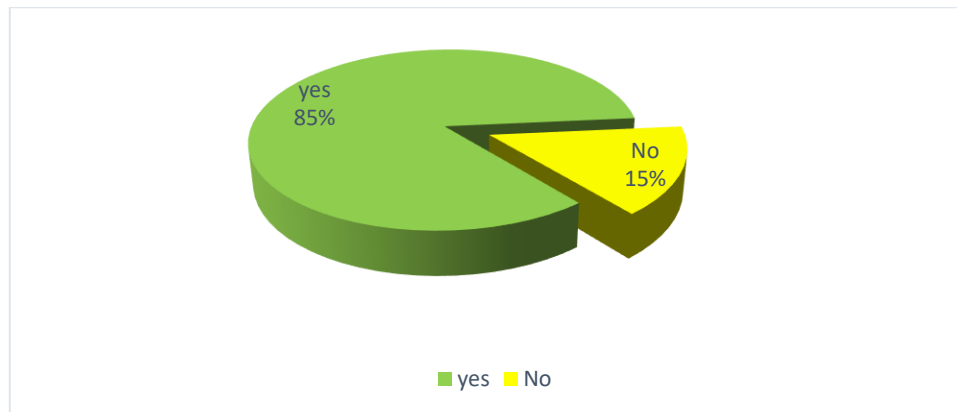


**Figure 3.3: Doctors' Involvement of the Patient's in Decision-making**

Figure 3.3 demonstrates that 46% of doctors answered 'yes' meaning that they involve the patient in decision-making. They assumed that this is the patient's right. Moreover, some patients cannot afford to pay for certain medicaments, analyses, and other referral treatments. Therefore, doctors share their patients to make the right decision that permits them to carry out the care. On the other hand, 54% of doctors answered with *sometimes*. They justified their answer by putting the patient's health as their primary goal.

Thus, they strived to convince the patient to accept their decision. For instance, if a patient's state requires a surgery, and he does not agree, doctors take the decision and 'force' the patient to make the surgery. Another example is when the patient does not accept to take a drug, the doctors will explain to him the complications that may befall him to convince him.

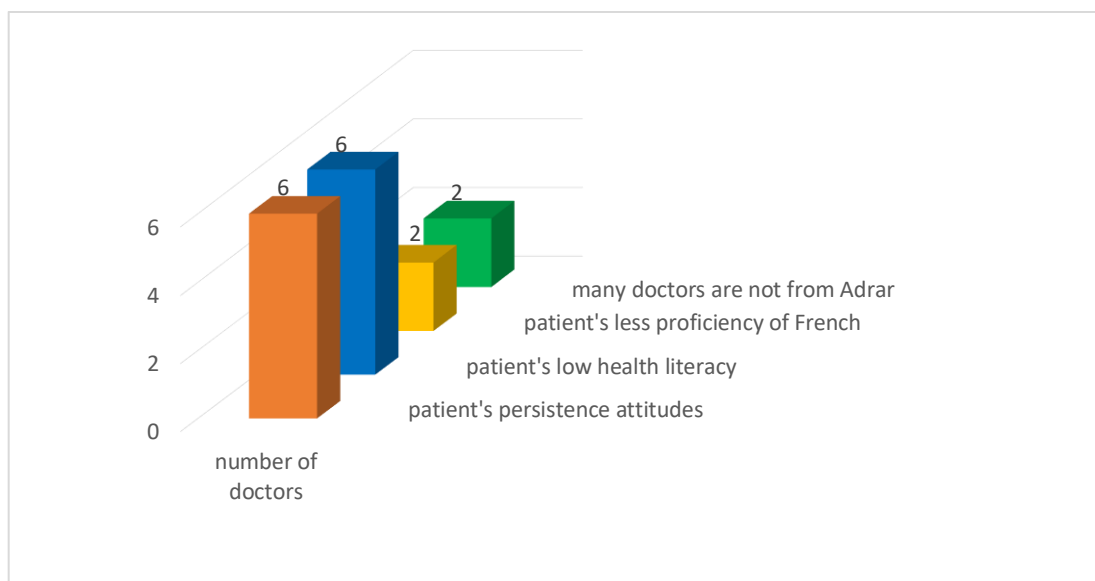
**Question 16:** does the work under pressure affect the doctor-patient communication?



**Figure 3.4: Doctors' Views on the Effects of under-pressure Work on DPC**

85% of doctors see the work under pressure as a critical barrier to adequate communication. Doctors have to care for a considerable number of patients. They confessed that the work in such conditions influences their productivity and leads to malpractice. Based on their experience when they work under pressure, they start concentrating less, misdiagnosing, and miscommunicating. For instance, a doctor noted that when he works under pressure, he catches only the first words that the patient says. If a patient says *I got a cold*, the doctor does not ask about other complications or symptoms. 15% stated that working under pressure does not affect their communication with the patient because they work at the university campus' clinic or in a service where they deal with a limited number of patients per a day.

**Question 17:** according to you what are the reasons behind ineffective doctor-patient communication in Adrar and what do you suggest as solutions?



**Figure 3.5: Doctors' Views on the Causes of Ineffective DPC**

Our interest in this study is to focus on the reasons behind ineffective doctor-patient communication. As represented in Figure 3.5, the doctors' answers demonstrate that there are four significant obstacles to effective doctor-patient communication in Adrar. The most cited reasons were the persistence of cultural health attitudes, and the low health literacy of patients.

The gap between doctors and patients in understanding illnesses and diseases can affect the doctor-patient communication. The doctors view the biomedical explanation as the right way for understanding the nature of illnesses and diseases, but it is difficult for patients to understand such explanations.

Doctors claim that patients suppose that the causes of some biomedical diseases are due to supernatural phenomena such as malevolent spirits. For example, a dermal disease that affects the newborn infants is called *ennar el farsia*; it is supposed to infect the newborn when a person who had been to a mourning house visits the newborn's mother. Another view held by some patients is the persistence of the embryo in the mother's womb for more than nine months or even for years. People call this phenomenon *ragd* "the sleeping baby" and explain it as a consequence of the mother's exposition to a spell that stops the development of the baby. Doctors are bothered by such narratives and claim that there is an analysis that indicates the pregnancy after 72 hours. They said that the patient not only believes such explanations, but also tries to convince them of their validity. According to those doctors, some patients believe the right cure for such diseases is to visit a *taleb* (an exorcist).

Furthermore, doctors argued that the minimum level of health literacy is lacking in many patients. Doctors stated that they rarely meet a patient who suspects that he has a certain disease because he has its symptoms. Additionally, when they ask patients about the drug that they are using, many patients do not know the name of their drugs and identify them by their packaging color. Besides, many patients deny the overuse of complementary and alternative medicine (CAM). Doctors assume that in Adrarian community the doctor is considered as a second option for patients. Indeed, some herbs may cause adverse consequences. One doctor, who is a physical readaptative doctor; stated that he is against the use of the traditional cast split in supporting fractures because it can lead to permanent handicap. In contrast, he was surprised by the effectiveness of the herb called *bechma* in healing the fractured bones. He said we do not hear about it in the north of Algeria, but it has a great benefit in joining bones.

All of those claims were in line of what we saw during the participant observation. For instance, a teacher with high blood pressure told us the name of the drug she had been using for years, but she did not know the drug's dose. She said "I do not know it, but I can ask my sister to check the packaging and send me the information via Viber if the doctor asks me about the dosage." Despite her high educational level, she still did not know the dosage of her medication.

Additionally, the other doctors reported that patients' poor proficiency of French and the fact that many doctors are not from Adrar are the main barriers to effective doctor-patient communication in Adrar. The doctors find linguistic variation to be a significant obstacle to successful communication. This confirms the statement of non-Adrarian doctors who said that when they first came to Adrar, they encountered difficulties in understanding the dialect of people. For example, a doctor mispronounced a regional word when conducting a consultation, but she grasped its meaning.

All doctors recommended that an awareness campaign is required in public and educational settings as well as through various media such as radio and social media platforms to enhance and improve doctor-patient communication and people's health literacy. They also noted that it is very important to integrate communication skills as a module into the medical education programme.

### 3.5.2 Results and Interpretation of Patient's Interviews

#### 3.5.2.1 Part one: Patients' background information

**Question 1:** how old are you?

Age Group	Number of Participants
18-30 years	12
30-40	8
40-50	10
Over 50 years	6

**Table 3.9: Patients' Age Groups**

From Table 3.9, we notice that the interviewed patients are between eighteen years old and over fifty years old.

**Question 2:** where are you from?

From Adrar City	From Rural Villages	From Other Wilayas
12	17	7

**Table 3.10: Patients' Regional Distribution**

Table 3.10 shows that not all of our patients are from Adrar city. The majority are from rural villages, and the minority are from other regions and live in Adrar. The rest are from the city of Adrar.

**Question 3:** what is your educational level?

Educational Level	Number of Patients
University	15
High school	5
Middle school	5
Primary school	6
None	5

**Table 3.11: Educational Level of Patients**

The patient's educational level varies, as shown in Table 3.11; a considerable number of the patients have a university level, while high school and middle school patients have the same number. Six (06) patients have the primary level, and five (05) patients did not attend school.

**Question 4:** how many languages do you speak, read, and write?

Language	Language Skills		
	Speaking	Reading	Writing
Arabic	35	30	30
Arabic and French	15	15	15
Arabic, French, and English	3	3	3
Berber	1	0	0
Arabic and Berber	1	1	1

**Table 3.12: Languages Skilled by Patients**

Table 3.12 shows that most of our patients skill Arabic, but five of them cannot write and read it. Sixteen patients are bilingual. Fifteen of them are able to speak, read, and write French and Arabic, but their fluency of French language varies ranging from average to excellent. Arabic-Berber speaker is just one. Three of the patients are trilingual; they reported being able to speak, read and write in Arabic, French, and English. Based on the interviews that we conducted with the patients; we deduced that patients with high proficiency in French showed a great response in discussing health issues. They also were eventually more satisfied with their doctors.

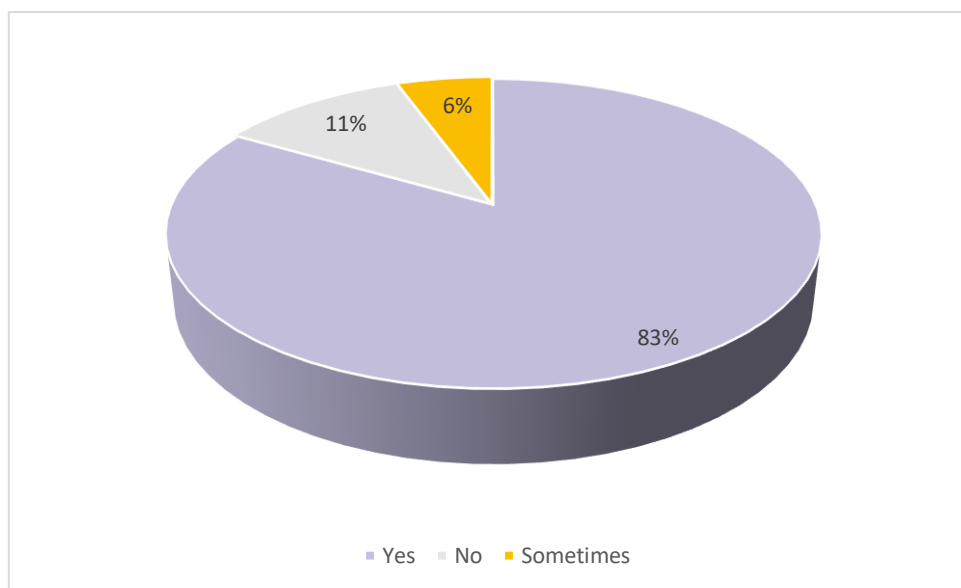
### **3.5.2.2 Part two: Results and interpretation of patients' satisfaction with their doctor's communication**

#### **3.5.2.2.1 The ability to understand and speak easily with doctors**

**Question 5:** did the doctor listen to you carefully during the consultation?

**Question 6:** did the doctor allow you to talk without interrupting you?

**Question 7:** was it easy to understand what the doctor said?



**Figure 3.6: Patients' Ability to Speak Easily with and Understand Doctors**

As it is shown in Figure 3.6, 83% of our informants said that they were able to understand, speak easily with, and be listened to carefully by doctors. Furthermore, almost all of them were satisfied with their doctors' communication. In contrast, when we tried to check their knowledge of their health problems, only few patients could describe their problem well. In fact, among the patients who were asked to take medical tests, only three of them could tell us what kind of test the doctor needed. The others just said “a blood test”. 11% of patients were dissatisfied with their doctor’s communication and stated that it was not easy for them to understand what their doctors said. They mentioned that doctors should make the patients feel at ease and encourage them to express their problem openly. 6% of patients said that sometimes their doctors do not listen to them carefully and do not give them sufficient time to express their health problems. According to them, it depends on the situation. They also reported that doctors are sometimes inattentive.

### 3.5.2.2.2 Languages used by doctors during the consultation

**Question 8:** which language did the doctor use during the consultation?

Language	Number of Participants
Arabic	24
French and Arabic	12

**Table 3.13: Languages Used by Doctors during the Consultation**

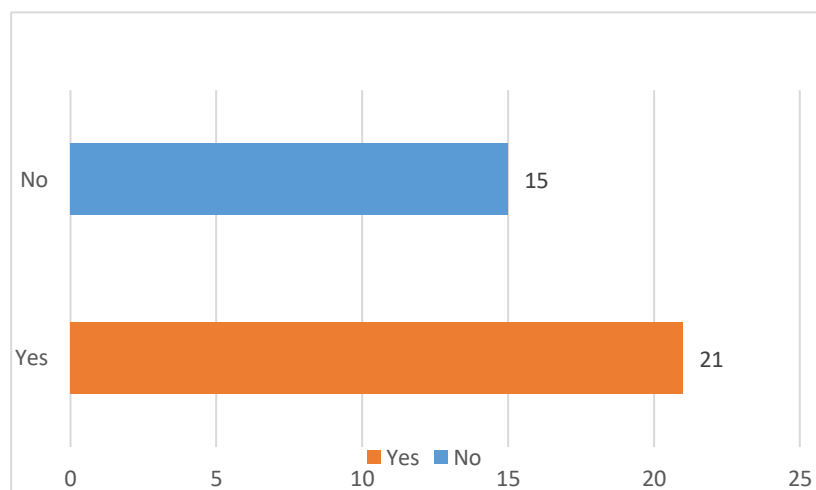
Based on data displayed in Table 3.13, the majority of patients (24 patients) said that doctors used the Arabic language to communicate with them. By contrast, the rest of them (12 patients) stated that doctors used both French and Arabic languages during consultations. Indeed, we noticed during the observation that in medical consultations the doctors used several French words. Besides, 54% of the doctors said that during the consultation they use Arabic and French.

### 3.5.2.2.3 Doctors' explanations, dealing with and examining patients

**Question 9:** did the doctor explain the advantages and disadvantages of the treatment?

**Question 10:** did the doctor make sure that you understood his explanation and instruction?

**Question 11:** did the doctor examine you thoroughly?



**Figure 3.7: Patients' Satisfaction about their Doctors' Communication**

Figure 3.7 reveals that 21 (58%) patients responded that doctors explained the advantages and disadvantages of the treatment, ensured patients' understanding of their explanations and instructions, and provided a thorough medical examination. However, 15 (42%) of the patients gave an opposite answer. Furthermore, during the data collection, an interviewee who is a university student was examined by a doctor and was prescribed an injection and then referred to a nurse. The student fainted after being administered the injection. The nurse subsequently asked the student's friend to bring her sick friend food. The student's friend invited us to accompany her to the shop since she hailed from a rural area and did not know the location of the shops. Upon returning, we queried the nurse about the reasons for the patient's fainting. He responded that the injection affected her because

she had not eaten anything prior to visiting the hospital. Hence, we noticed the lack of communication among the doctor, the patient, and the nurse. This serious complication could have been avoided by merely asking about the patient's diet. Another example is of a man with diabetes. He said that he is satisfied with his doctor. Thus, we tried to assess his awareness concerning diabetes by asking some questions.

Researcher: What type of diabetes do you have?

Patient: I use insulin injections.

Researcher: Why do you not use the pill?

Patient: I used to take it for many years, but the doctor changed it to an injection.

Researcher: Did the doctor explain why he changed the medication?

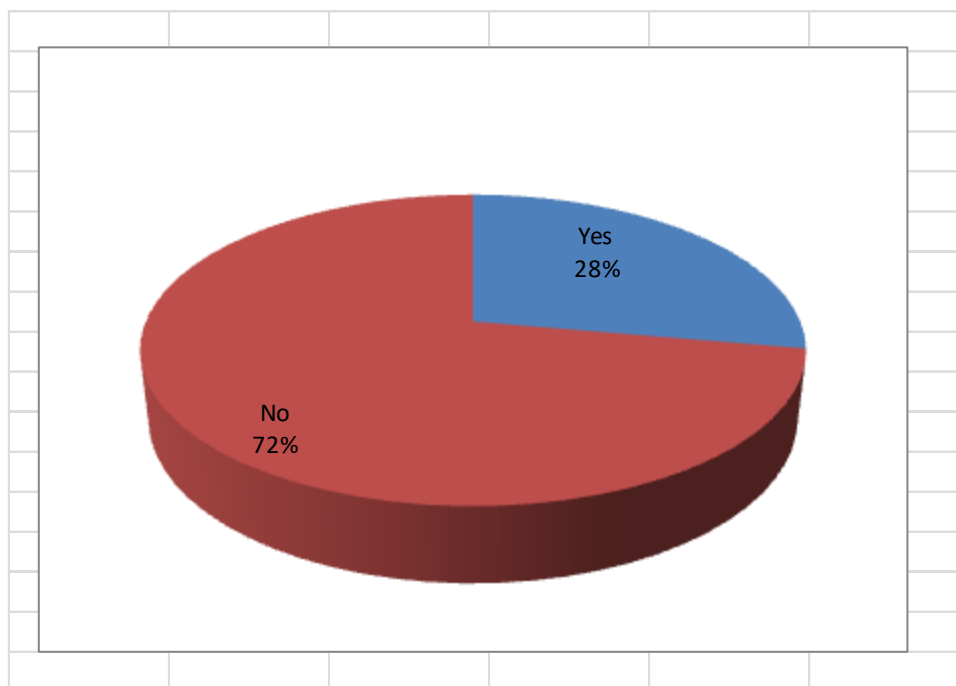
Patient: He just told me that the pill is not appropriate for me anymore.

Thus, switching from pill use to injection reveals that the patient had type II diabetes at the beginning and then it evolved into type I. However, the doctor did not explain and inform him about the characteristics of each type.

#### **3.5.2.2.4 Patients' involvement in decision-making**

**Question 12:** did the doctor involve you in decision-making?

**Question 13:** did the doctor ask you about your economic status?



**Figure 3.8: Patients' Involvement in Decision-making**

Figure 3.8 demonstrates that 72% of patients stated that they were not involved in the decisions made by doctors, and doctors did not ask them about their economic status. They were bothered by their doctors' authority during the consultation. These patients also stated that they need to be involved in decisions-making during their care process. In addition, they assumed that involving patients in decision-making, by informing them about the different options and treatments available to them, makes them more likely to understand and to follow the doctor's instructions. By contrast, 28% of patients said that they were asked by doctors about their socio-economic status and were involved in decisions made by doctors. Some of these patients were pregnant women who were asked if they could carry out their work and others were students and patients with chronic diseases who could not afford the cost of the original drugs and have no insurance card to cover their purchase of the drugs.

Furthermore, patients stated that doctors take a vacation without informing their patients or making an announcement. This is especially troublesome for the patients who come from distant regions. They also added that doctors do not take into consideration their socio-economic status. They sometimes cross distances to show the doctor the results of their medical test or x-ray exam, and after waiting a long time, the doctors do not receive them in person but communicate their response through the nurses.

### 3.5.2.2.5 Sufficient Time in Consultation

**Question 14:** did the doctor give you enough time during the consultation?

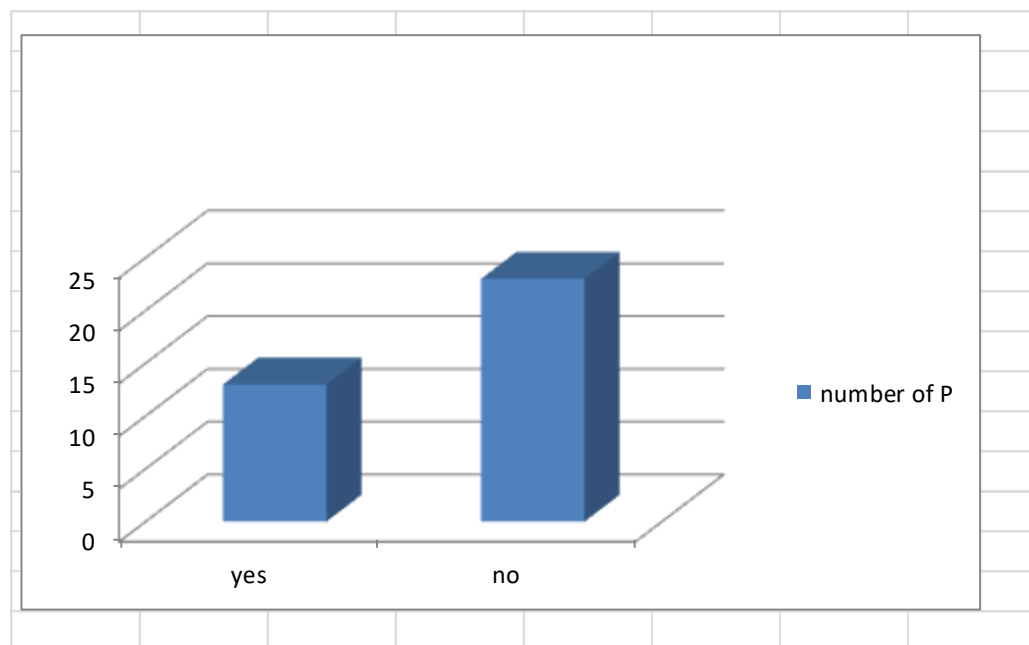
Answers	Number of Patients
Yes	24
No	12

**Table 3.14: Sufficient Time during Consultation**

When we asked our informants about the duration of their consultations with the doctor, 24 out of 36 patients answered that doctors gave them enough time in consultation to talk and express their feelings. By contrast, 12 patients replied that they were not given enough time to speak. Two of the consultations that we attended during our participant observation lasted less than seven minutes.

### 3.5.2.2.6 Effect of Doctor's Gender on Doctor-patient Communication

**Question 15:** is there a difference in communication with male and female doctors?



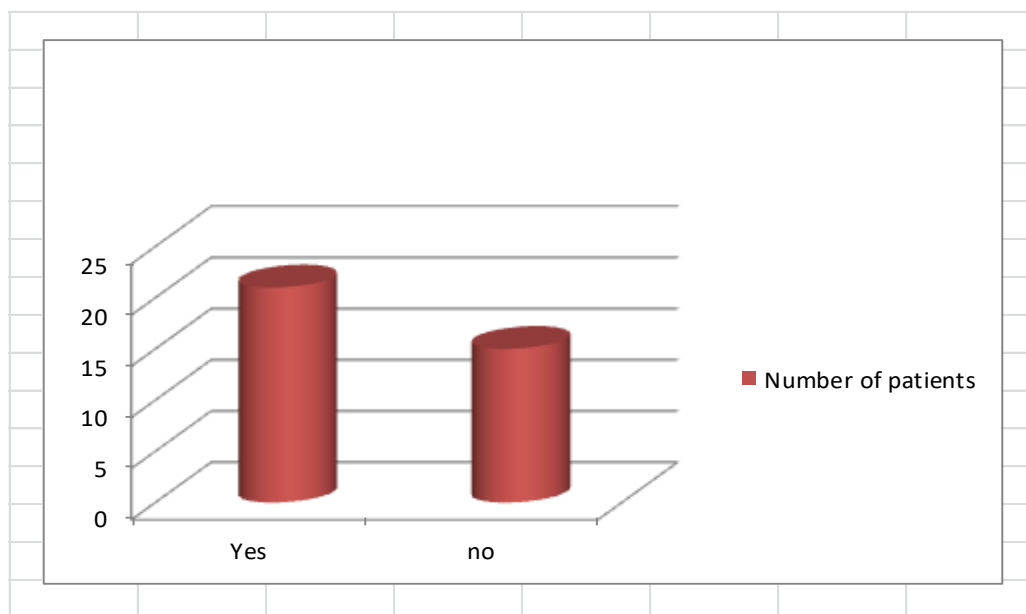
**Figure 3.9: Patients' Views on whether Doctor's Gender Affects Communication**

From Figure 3.9, we can see that the majority of patients (23) said that there is no difference in communication with male or female doctors. While 13 patients told us that there is a difference between them. All our female informants stated that they prefer to visit

female doctors about sensitive matters. We assume that this option stems from the region's conservative traditions.

### 3.5.2.2.7 Doctor's Lack of Communication with Patients during Consultation

**Question 16:** is there a case where the doctor did not speak with you, just prescribe a medicine?

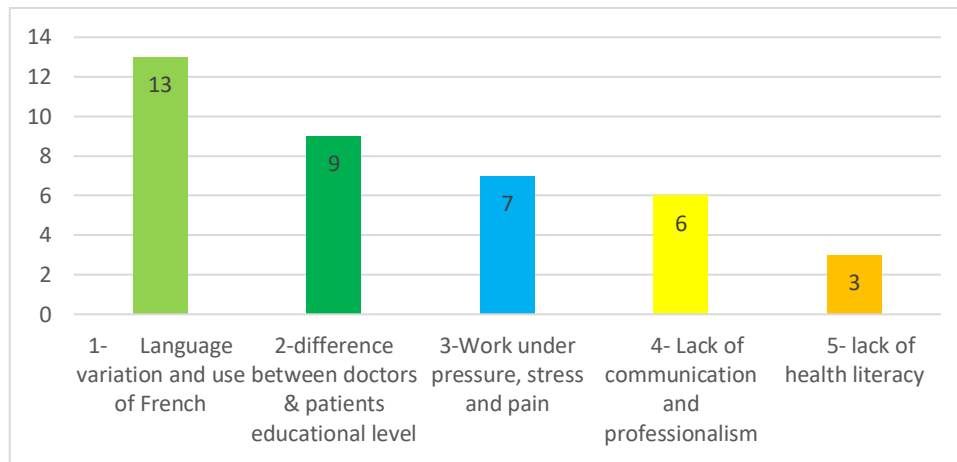


**Figure 3.10: Lack of Communication by Doctors during a Consultation**

It is clear from Figure 3.10 that more than half our participants (21 patients) have come across a doctor who did not speak with them and just prescribed some medicine for them. Fifteen (15) patients, however, answered that they have never had a consultation where the doctor failed to communicate with them. This result confirms what doctors told us during the interviews when they said that sometimes due to pressure they only pre-assume the patient's problem without taking into consideration what the patient is trying to say.

### 3.5.2.2.8 Reasons behind Ineffective Doctor-Patient Communication

**Question 17:** according to you, what are the real reasons behind ineffective doctor-patient communication in Adrar?



**Figure 3.11: Patients' Views on the Reasons behind Ineffective DPC**

Figure 3.11 shows that patients stated many reasons for ineffective doctor-patient communication. The highest number is given to the variation of language and the use of French. 13 patients suggested that the main reason for ineffective doctor-patient communication is the different dialects used by physicians and patients in Adrar, in addition to the use of French-language phrases and technical expression by physicians, particularly with a weak level of understanding in French that characterizes the region. Hence, when we asked patients about the names of symptoms and diseases used in Adrar, we discovered a linguistic variation in the given examples (see Table 3.15). Seven (07) patients said that the work under pressure, stress, and feeling pain by patients reduce the chance of effective communication.

Throughout the data collection process, we found that the number of appointments per day in some private clinics reached as many as 50 patients. When we asked doctors about this rather large number, they explained that such a large number of patients was due to the lack of specialised doctors and the lack of many medical specialties in Adrar. They then added that dealing with so many patients means the doctors are working under pressure and therefore becoming less focused. There are several examples of this. A pregnant woman told us she had been to a gynaecologist who was working under pressure. After examining her, he diagnosed her with fibroids and gave her medication to get rid of them. However, the woman was in the early pregnancy stages, and the doctor did not notice. A doctor would not have made this serious mistake if he had given her a test to confirm his diagnosis. Nine patients reported that a disparity between doctors' educational level and that of patients along with patients' cultural attitudes hinder doctor-patient interactions. Patients believe that

doctors are always in control and manage patients as they like. During the interviews, a lady from Oran who had been living in Adrar for four years told us that when she asked questions during a consultation, the doctor became anxious and said '*raki tetfayehmi*', which roughly means 'you are acting smarty'. She was angry that the doctor would not answer her questions. She said that the quality of health care varied significantly between the northern regions of the country and what she experienced in Adrar. According to her, doctors gave more information to their patients in the north. They even used writing to illustrate the illness and treatment process. In two of our observation sessions, we noticed that the physician did not give patients the opportunity to explain their problems.

During all the observations that were carried out at the clinics of local university campuses, doctors started the encounters with the patients. However, instead of starting with an open-ended question (e.g., what is wrong with you?), one doctor used the same closed question for two patients (you got cold?). The patients, on the other hand, were passive participants. A student patient could not even express her problem verbally; she only touched her neck and said "This". The doctor asked her to open her mouth to have a look. Then he returned to his chair and asked her if she had a fever. The patient noted that she had a fever last night. The doctor gave her the prescription without using any instrument for measuring her temperature or her blood pressure. The student took the prescription and left without asking any questions about her health state, or any certificate to justify their absence, although she may be missing classes. We were surprised by the passive non-participatory conduct of the patient in the encounter, which reflected a "paternalism" doctor-patient relationship.

In addition to the informants with a low educational level, some university graduates stated that the use of alternative medicine and other traditional medical practices to treat diseases is gaining more popularity in Adrar city. As an example, the interviewed patients noted that they used certain alternative-medicine drugs before visiting the doctor. Some patients believe that there are some diseases that doctors cannot treat. Six (06) respondents claimed that doctors are not skilled in the communication process, which creates a gap between them and patients. This fact is supported by our observation sessions where we noticed that the doctors did not use any introductory expressions to start the encounter and there was an absence of any non-verbal cues that would make the patients at ease to facilitate

the diagnosis. Additionally, our observation showed that the lack of health literacy and awareness decreases the effectiveness of doctor-patient communication. For instance, a university student who suffers from a chronic respiratory problem visited the doctor to examine her. Below is an excerpt of the exchange she had with the doctor.

Doctor: do you use any nasal spray?

Student: yes.

Doctor: what is its name?

Student: I don't know.

Doctor: what is its cover colour?

Student: maybe white.

This sample exchange supports the views of doctors who said that patients do not even know the names of their medications even when they have been using them for a long time. As illustrated in the conversation above, although the student has been using the nasal spray for a long time, she does not know its name.

Words used in Adrar	Transliteration	English gloss
لمرار	Lmrrar	Stomach-ache
صدر	<u>Sdar</u>	Cough
رواح – معايا براكاة	Rwah	Cold
قراجم – قماقم – قرازي	lgrajm, lqmaqm, qrazi	Rich
طياح صفاق – جريان	jariyan, tyah sfāq (in Tuareg dialect)	Dysentery
جريده	jrida (in Tuareg dialect)	Lumber
مزطوم	mazTūm	Clogged up nose
لقاضي	lqaDī	Uvula
روجة	rawja	Dizziness

**Table 3.15: Names of Symptoms and Diseases Used by Patients in Adrar**

### 3.6 Discussion

The aim of this research was to identify the barriers to effective doctor-patient communication in Adrar. The results obtained confirm and support our hypotheses. First, there is a general agreement between both participants' categories (doctors and patients) that communication hurdles are encountered during medical consultations. This is strongly supported by our observation of medical consultations in the clinics of local university campuses. Naturally, communication gaps resulted in misunderstanding and dissatisfaction between both communicators. Second, while examining linguistic diversity, the use of French, and the impact of medical jargon on doctor-patient communication, we noticed similarities among interviewees' answers, which confirm that language variation is a barrier to effective doctor-patient communication. All the doctors emphasised the difficulties they face with the Tuareg dialect. A total of 54% of the doctors stated that they speak Arabic and French during consultations, yet, they did not pay attention to the impact of the use of French on the patient while communicating information. As the French language is considered integral to their profession, they view it as unavoidable linguistic behaviour.

Moreover, the observation sessions confirmed the prevalence of French use. During patients' interviews, we noted that the interviewees who had a higher proficiency in French were more likely to be satisfied with their doctors. However, communication problems were observed during medical consultations even if both communicators spoke the same language. On one hand, more than half of the doctors stated that they did not understand all that their patients said. On the other hand, the doctors were also certain that their patients did not understand everything they were told. This is due to the diversity of geographical locations from which the doctors and patients hail, where each area has its specific dialect.

Nevertheless, the key findings indicate other unexpected barriers that profoundly affect the effectiveness of doctor-patient communication in Adrar. The patients' poor health literacy is a significant challenge faced by doctors. They claimed that many patients lack basic health literacy. Similarly, some patients also concur that health literacy affects doctor-patient interaction. These findings were confirmed when we attempted to assess patients' health literacy by asking them questions about their health condition – they could not give us accurate descriptions. However, 83% of the patients said that they can understand their doctors and speak to them easily. In addition, we noticed that doctor-patient communication

became ineffective when the disparity between the doctor and patient's educational levels was greater. Patients stated that it appeared as though the doctors were always in a superior position and in power due to their knowledge. Consequently, patients with lower educational levels became passive during the consultation.

Another critical barrier to effective doctor-patient communication in Adrar is the persistent health attitudes of people. The cultural differences between doctors and patients cause disagreements among them regarding issues such as the causes of diseases, the treatment procedure, and the extensive use of alternative medicine. Doctors stated that health beliefs, attitudes, and values influence the health care system in Adrar in general and the doctor-patient relationship in particular.

Patients declared that the doctors' lack of communication skills is a major obstacle to a good doctor-patient relationship. The findings reveal that 77% of doctors did not receive any communication training during their years of study. This statistic supports the patients' claims about the doctors not involving them in decision-making, and not asking them about their economic status. During the observation, we marked the absence of empathy, active listening, and the use of open questions on the part of the doctors, which made the patient a passive party in the communication process. Moreover, a model of paternalism characterised the consultations, which confirms the exclusion of patients from decision-making process. Another important observation is that the doctors' lack of communication skills leads them to concentrate on the biomedical aspect of the caring process and neglect the humanistic aspect. A highlighted example is that doctors do not use telehealth technologies to contact their patients although it is important for the provision of health services, especially in situations where patients cannot visit their doctor due to external factors, such as the current COVID-19 pandemic.

Additionally, both interviewee groups share the viewpoint that working under pressure affects doctor-patient communication. 85% of doctors stated that working under pressure makes them less effective and focused, which may lead to severe medical errors.

Finding solutions to address this communication gap between doctors and patients is essential for the better practice of medicine. Doing so requires the efforts and participation

of all members of society, regardless of their social status. Awareness campaigns in public spaces and educational institutions can help promote health literacy among people. Moreover, the integration of communication skills into medical training programs is critical.

The literature review section showed that there is an increased amount of attention paid to medical communication, particularly to doctor-patient interaction, by researchers across the world. However, we were surprised by the shortage of literature addressing this topic in Algeria, especially since Algeria is a linguistically diverse state. Furthermore, there are several multinational doctors (e.g. Chinese and Cuban), who work at Algerian hospitals and interact with patients who do not share the same linguistic and cultural background. This could result in several instances of poor communication between patients and doctors, which constitutes a major problem in the provision of healthcare services. Medical communication in Algeria thus requires further examination and research.

### **3.7. Conclusion**

This chapter explained the methodology adopted for conducting this research and also provided the interpretation of the data collected through interviews and participant observation. The results obtained were presented in the forms of tables, graphs, and paragraphs. The main findings were then discussed to address the main research questions and suggesting recommendations for enhancing doctor-patient communication in the city of Adrar.

## **General Conclusion**

### **General Conclusion**

Communication is an intrinsic part of our daily lives. In health care settings, doctors and patients, with sometimes diverse backgrounds, interact with each other and not all the conveyed messages are received as intended. Though no one can deny that medicine relies on effective doctor–patient communication, which can be considered as a foundation on which compliance and satisfaction are based, communication breakdowns during the medical consultation are not surprising.

As noted previously, the ultimate goal of this work was to identify the obstacles behind ineffective doctor–patient communication in Adrar. The findings obtained supported our hypothesis and helped us draw important conclusions. Regarding the first research question ,which is ‘is the doctor-patient communication effective in the Adrarian medical institutions?’, the results reveal that due to the communication failures, dissatisfaction occurs during the medical consultation in Adrar. Moreover, the results related to the second question demonstrate that despite the primary barriers which are the linguistic variation, the use of French by doctors, and patients’ low proficiency in French, there are other barriers that impede the effectiveness of doctor-patient communication in Adrar which are:

- The persistence of cultural health attitudes and divergence beliefs;
- Low health literacy of patients;
- The difference in educational level between doctors and patients;
- The pressure under which doctors work;
- Doctors’ lack of communication skills.

Accordingly, doctors and patients consider the medical consultations in Adrar nonsatisfactory. Both parties contribute to communication hurdles in addition to the social and cultural external factors. Moreover, physicians exercise their power of expertise and control of the medical consultation without involving patients, which leads to the mistrust of patients and non-adherence to treatment. For their part, patients fails to assume an active role during the medical encounters and are dependent on instructions given by doctors rather than negotiating in the care process. Thus, to achieve good healthcare service, effective communication is required. In other words, communication and health facilities are closely linked.

## **General Conclusion**

For these reasons, and to bridge the gap between doctors and patients, the involvement of all members of the society is required. Sensitization and awareness-raising campaigns through different mediums and in public and educational settings are needed. Patients need to be empowered to take responsibility for their health and be conscious of how they influence the provider-patient communication. Moreover, along with mastering biomedical knowledge, doctors must master the communication skill that is regarded as a fundamental prerequisite for high-quality healthcare. Hence, the implantation of communication skills as a module in the medical curriculum is necessary. Furthermore, doctors must take into account the linguistic, social and cultural dimensions while providing medical care to optimize the doctor-patient communication in Adrar.

## References

### References

1. Albirini, A. (2016). *Modern Arabic sociolinguistics: Diglossia, codeswitching, attitudes and identity*. Routledge, Taylor & Francis group.
2. Alder, R. B. & Rodman, G. (2006). *Understanding human communication (9<sup>th</sup> ed.)*. Oxford university press.
3. Berry, D. (2007). *Health communication : Theory and practice*. Open University Press.
4. Block, H. & Tregger, k. (1942). *Structuring: An integrated approach to its nature and treatment*. Wolters Kluwer.
5. Bouhania, B. (2012). *Touat Spoken Arabic: Dialectology and sociolinguistics*. Dar Ebn Batouta.
6. Calero, H. H. (2005). *The power of nonverbal communication*. Silver Lake.
7. Chomsky, A. N. (1988). *Manufacturing consent*. A national bestseller.
8. Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education*. (6<sup>th</sup> Ed.). Routledge, Taylor & Francis group.
9. Dawns, P. (1998). *An American science*. Oxford University Press.
10. Directorate of Health, Population and Hospital Reform of Adrar. (2019). Census of population.2019.
11. Donovan, E. E., Miller, L. E., & Goldsmith, D. J. Interview and Focus Group. (2014). In B.B. Whaley (Ed.), *Research methods in health communication: Principle and application* (pp.21-40). Routledge, Taylor & Francis group.

## References

12. Dörnyei, Z. (2007). *Research Methods in Applied Linguistics quantitative, qualitative and mixed methodologies*. Oxford University Press.
13. Duranti, A. (1997). *Linguistic anthropology*. Cambridge University Press.
14. Edwards, J. (2009). *Language and identity: An introduction*. Cambridge University Press.
15. Ellingson, L. L., & Rawlins, W. K. Ethnography. (2014). In B.B. Whaley (Ed.), *Research methods in health communication: Principle and application* (pp.57-77). Routledge, Taylor & Francis group.
16. Engel, W. R. (1990). *Doctor-patient interaction*. John Benjamins Company.
17. Finn, N. B., & Brian, W. F. (2009). *Digital communication in medical practice*. Springer.
18. Finnegan, F. (2004). *Language and its structure*. Cambridge University Press.
19. Finnegan, R. (2005). *Communicating the multiple modes of human interconnection*. Routledge, Taylor & Francis group.
20. Fiske, J. (1990). *Introduction to communication studies*. Routledge Taylor & Francis group.
21. Foulger, D. (2004). Models of the Communication Process. Retrieved from <http://davis.foulger.info/research/unifiedModelOfCommunication.htm>
22. Given, L. (2008). The sage encyclopedia of qualitative research methods Vol.1&2. Sage Reference Publications. PP: 25-54-589.
23. Glesne, C. (2010). *Becoming qualitative researchers: An introduction* (4th ed.).

## References

- Pearson.
24. Goldstein, P., & Machor, J.L. (2008). *Journal of communication inquiry*. Oxford University Press.
  25. Gumperz, J.J. (1982). *Discourse strategies*. Cambridge University Press.
  26. Gwyn, R. (2002). *Communicating health and illness*. Sage Publications.
  27. Hartley, P. (1999). *Interpersonal communication* (2nd ed.). Routledge, Taylor & Francis group.
  28. Haug, M., & Lavin, B. (1983). *Consumerism in medicine: Challenging physician authority*. Beverly Hills, CA; Sage Publications.
  29. Heritage, J. & Maynard, D. (2006). *Practicing medicine: Structure and process in primary care encounters*. Cambridge University Press.
  30. Hill, A., Watson, J., Rivers, D., & Joyce, M. (2007). *Key themes in interpersonal communication*. Open University Press.
  31. Hills, L. Overcoming the Ten Most Common Barriers to Effective Team Communication Podiatry Management [serial online]. March 2014; 33(3):141-148. Available from: CINAHL Plus with Full Text, Ipswich, MA. Accessed January 18, 2018. Retrieved from <https://www.podiatrym.com/pdf/2014/6/Hills314web.pdf>
  32. Hogan, E. (1966). *Containing the atom*. Cambridge University Press.
  33. Holmes, J. (2013). *An introduction to sociolinguistics* (4th ed.). Routledge, Taylor & Francis group.
  34. Hudson, R. A. (1996). *Sociolinguistics* (2nd ed.). Cambridge University Press

## References

35. Hymes, D. (1982). *Language and social identity*. Cambridge University Press.
36. Institute of medicine. (2013). *Health Literacy : Improving Health, Health Systems, and Health Policy Around the World : Workshop Summary*. The national Academies Press.
37. Karp, F. (2011). *Talking with your older patient: A clinician's handbook*. National Institutes of Health. Anging.
38. Koenig, C. J. & Robinson, J. D. Conversation analysis understanding the structure of health talk. (2014). In B.B. Whaley (Ed.), *Research methods in health communication: principle and application* (pp. 120-137). Routledge, Taylor & Francis group.
39. Kopera-Frye, K. (2017). Health literacy. In K. Kopera-Frye (Ed.), *Health literacy among older adults* (pp. 1-16). Springer.
40. Leeuwis, C. & Van den Ban, A. (2004). *Communication for rural innovation : Rethinking agricultural extension* (3rd ed.). Blackwell.
41. Levinson, W., Roter, D. L. (1993). The Effects of Two Continuing Medical Education Programs on Communication Skills of Practicing Primary Care Physicians. *Journal of General Internal Medicine*, 8(6), 318-324.
42. Levinson, W., Roter, D. L., Mullooly, J. P., Dull, V.T., & Frankel, R.M. (1997). Physician-patient communication. The relationship with malpractice claims among primary care physician and surgeons. *Journal of American Medical Association*. 277(7), 553-559.
43. Lewandowski, Marcin. 2010. "Sociolects and Registers: a Contrastive Analysis of Two Kinds of Linguistic Variation". *Investigationes Linguisticae*, 20, 60–79.
44. Lianas, D., Mully, S., & Stockwell, L. (2007). *An introduction to linguistic*. The University of Sydney Calender.

## References

45. Louis, M., Liams, C., & Stockwell, P. (2007). *The Routledge Companion*.
46. Mackay, S., & Hornberger, N.H. (1996). *Language and sociolinguistics*. Cambridge University Press.
47. Marchall, C., & Rossman, G. B. (1989). *Designing qualitative research*. Sage.
48. Maynard, J. & Heritage, D. (2005). Conversation analysis, doctor-patient interaction and medical communication. *Medical education*, 34(4), p.428-435.
49. Mehria, A. & Bedlaoui, I. (2019). *Arabization of Foreign Words: A Case Study of Shop Signs and Restaurant Menus in Adrar*. (Unpublished Master dissertation). University of Adrar.
50. Milroy, L., & Gordon, M. J. (2003). *Sociolinguistics : Method and interpretation*. Blackwell.
51. Morreale, S. P., Spitzberg, B. H., & Barge, J. K. (2007). *Human communication : Motivation, knowledge, and skills* (2nd ed.). Wadsworth.
52. Pearson, J. C., Nelson, P. E., Titsworth, S., & Hartley, L. (2011). *Human communication* (4th ed.). MCGraw-Hill Companies.
53. Pendleton, D., Schofield, T., Tate, P., & Havelock, P. (2003). *The new consultation: Developing doctor-patient communication*. Oxford University Press.
54. Robinson, J. D. (2007). The Role of Numbers and Statistics within Conversation Analysis, *Communication Methods and Measures*, 1:1, 65-75.

## References

55. Robinson, M. (2007). *Qualitative and quantitative research methods*. Cambridge University Press.
56. Robson, C. (1993). *Real world research: A resource for social scientists and practitioners researchers*. Blackwell.
57. Romaine, S. (1994). *Language in society: An introduction to sociolinguistics*. Oxford University Press.
58. Roter, D. L. & Hall, J. A. (1997). Patient-provider communication. In K. Glanz, P. M. Lewis, & B. K. Rimer (Eds.), *Health Behavior and Health Education: Theory, Research, and Practice*, 206-226.
59. Roter, D. L., & Hall, J. A. (2006). *Doctors talking with patients/ patients talking with doctors: Improving communication in medical visits*. (2nd ed.). Greenwood Publishing Group.
60. Rowland-Morin, P. A., & Carroll, J. G. (1990). Verbal communication skills and patient satisfaction: A study of doctor-patient interviews. *Evaluation & the Health Professions*, 13(2), 168–185.
61. Sapir, E. (1921). *Language: An introduction to the study of speech*. Amazon.
62. Sarangi, S. & Roberts, C. (Eds.). (1999). *Talk, work, and institutional order : Discourse in medical, mediation, and management settings*. Mouton de Gruyter.
63. Simpson, J. (2011). *The Routledge Handbook of Applied Linguistics* (1st ed.). Routledge, Taylor & Francis group.
64. Squier, R. W. (1990). A model of empathic understanding and adherence to treatment regimens in practitioner-patient relationships. *Social Science & Medicine*, 30(3), 325-339.

## References

65. Tebble, H. (1998). *Medical interpreting: Improving communication with your patients*. Deakin University.
66. Thomas, R. K. (2006). *Health communication*. Springer.
67. Verlag, G. (2017). *Sociolinguistic study of the jargon used by secondary schools pupils: The case of boy*. der Deutschen Nationalbibliografie.
68. Vermeir, P., Vandijck, D., Degroote, S., Peleman, R., Verhaeghe, R., Mortier, E., Hallaert, G., VanDaele, S., Buylaert, W. & Vogelaers, D. (2015). Communication in healthcare: a narrative review of the literature and practical recommendations. *Journal of Clinical Practice*, 69(11), 1257-1267.
69. Wardhaugh, R. (2006). *An introduction to sociolinguistics*. (5th. Ed.). Blackwell Publishing.
70. Wood, J. T. (2009). *Communication in our lives* (5th ed.). Wadsworth Cengage.
71. Wood, J. T. (2010). *Interpersonal communication : Everyday encounters* (6th ed.). Wadsworth Cengage.
72. Woodak, R., & Koller, V. (Eds.). (2008). *Handbook of communication in the public sphere*. Walter de Gruyter.

## **Appendix A**

### **Structured Questions of the Doctor's Interview**

1. How old are you?
2. What is your specialty?
3. Where are you from?
4. How long have you been a doctor?
5. How many languages do you speak, read, and write?
6. Which language do you use during the consultation?
7. Do you know the names of diseases, symptoms in Arabic?
8. Have you been taught 'communication' as a module during your higher studies or afterwards?
9. Are there ever times that you do not understand what your patients say?
10. If so, give us an example, and how do you deal with the situation
11. Do your patients understand everything you say?
12. Do the patients ask you for more clarification in case of incomprehension?
13. According to your experience, which group of people is difficult to communicate with?
14. Do you use any technological medium to contact your patients?
15. Do you involve patients in decision-making?
16. Does working under pressure affect the effectiveness of doctor-patient communication?
17. According to you, what are the real reasons behind ineffective doctor-patient communication in Adrar?
18. What do you suggest to improve doctor-patient communication?

## **Appendix B**

### **Structured Questions of the Patient's Interview**

1. How old are you?
2. Where are you from?
3. What is your educational level?
4. How many languages do you speak, read, and write?
5. Did the doctor listen to you carefully during the consultation?
6. Did the doctor allow you to talk without interrupting you?
7. Was it easy to understand what the doctor said?
8. Which language did the use during consultation?
9. Did the doctor explain the advantages and disadvantages of the treatment?
10. Did the doctor make sure that you understood his explanation and instruction?
11. Did the doctor examine you thoroughly?
12. Did the doctor involve you in decision-making?
13. Did the doctor ask you about your economic status?
14. Did the doctor give you enough time during the consultation?
15. Is there a difference in communication with male and female doctors?
16. Is there a case where the doctor did not speak with you just prescribe a medicine?
17. According to you what is the real reasons behind ineffective doctor-patient communication in Adrar?
18. What do you suggest to improve doctor-patient communication?

## ملخص

المقياس الحاسم لأفضل الممارسات الطبية هو التواصل الفعال بين الطبيب والمريض لما له من أهمية بالغة في تأمين التشخيصات الصحيحة، تحقيق أفضل النتائج، وزيادة درجة الرضا بين الطبيب والمريض. تحاول هذه الدراسة تحديد الحواجز الرئيسية التي تحول دون التواصل الفعال بين الطبيب والمريض في أدرار، حيث يعيش أشخاص ذوي خلفيات لغوية مختلفة. ولهذا الغرض، اعتمدت طريقة نوعية للحصول على نتائج دقيقة. حيث قمنا بإجراء مقابلات مع أطباء ومرضى في مرافق صحية مختلفة في أدرار. بالإضافة إلى حضور عدة جلسات طبية من أجل ملاحظة كيفية التواصل بين الطرفين. وبعد تحليل البيانات التي تم جمعها، إحصائياً ووصفياً على حد سواء، خلصت الدراسة إلى أنه إلى جانب الحواجز اللغوية، الاعتقادات الراسخة، تدني مستوى الثقافة الطبية، افتقار الأطباء لمهارات التواصل، والعمل تحت الضغط، كلها تشكل عقبات تعوق الاتصال بين الطبيب والمريض في مرافق الرعاية الصحية في أدرار.

الكلمات المفتاحية: التواصل الفعال، التواصل بين الطبيب والمريض، حواجز، الرضا، الرعاية الصحية.