A Sociolinguistic Study of Doctor-Patient Interaction in Healthcare Settings: A Jordanian Perspective

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Statement of Authentication

I hereby declare that I am the sole author of this thesis and that to the best of my knowledge it contains no material that has been previously written and/or published by another person except as acknowledged.

(Signature)

Table of Contents

Preface

My decision to focus on doctor-patient communication in healthcare settings in Jordan for my study was originally stemmed from some personal experiences. Prior to this research, I had to accompany my mother to the hospital. She was treated with kidney dialysis and she had to be hospitalized for a couple of months. I realized from my observation of the communication between her and her doctor that there was a need to investigate the barriers that influenced their communication and lead to misunderstandings and conflicts. I observed various doctors used English medical jargon when they communicated with patients and they exclusively and intentionally used the English language to exclude patients during the medical visit as a discourse strategy so as to negotiate their diagnoses and treatments with other doctors, while patients deemed dissatisfied with that communication style.

In truth, this breakdown in communication between doctors and patients forced me to undertake this qualitative study about the factors that hinder doctor-patient communication in Jordan or the factors that enhance their communication. The findings from my study convinced me that the topic was worth investigating for a PhD thesis.

Dedication

This work is dedicated to the soul of my mum, for all of the sacrifices, love and support throughout my life which have sustained me. I dedicate this project to my husband; Salah for his celebration of all life's ups and downs with me and I love you for it. I also dedicate it to my four children, Mutaz, Zain, Tala, and Bashar for their love, continuous support and encouragement. You are my inspiration.

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Abbreviations

CAT: Communication Accommodation Theory

CS: Code-switching

D-P Communication: Doctor-Patient Communication

IST: Interactional Sociolinguistics Theory

LEP: Limited English Proficiency

LHL: Limited Health Literacy

Abstract

Communication is a crucial component of clinical practice for both doctors and patients. The effectiveness of verbal and non-verbal communication between doctors and patients has a significant impact on health outcomes for patients. Previous studies have shown that language and socio-cultural factors can have a negative impact on the doctor-patient relationship, patients' satisfaction, patients' adherence to treatment and other related outcomes. The purpose of this study was to examine the verbal, non-verbal and socio-cultural barriers that preclude effective doctor-patient (D-P) communication in Jordan leading to poor health outcomes and identifying the strategies used for effective communication. This study drew conceptually on Interactional Sociolinguistics Theory (IST) and Communication Accommodation Theory (CAT) to describe and analyse Jordanian D-P interaction in clinical consultations. It sought to 1) analyse the factors that hinder doctor-patient verbal interaction, 2) explore the non-verbal communication benefits and barriers in doctor-patient clinical interaction, and 3) critically examine the socio-cultural barriers that cause ineffective doctor-patient communication and misunderstanding. A thematic, qualitative approach was employed to interpret the phenomena under study. Doctor-patient clinical interaction was video-recorded and interviews with doctors (n=9) and patients (n=18) were audio-recorded. The analysis of audio and video data revealed that several factors influenced doctor-patient communication, and were divided into three major dimensions. The verbal dimension included language barriers, health literacy and disclosure of sensitive information. The non-verbal dimension includes haptic, paralinguistic, and kinesic cues. Socio-cultural dimension includes gender roles, traditional medicine, and cultural beliefs. The study also found that participants used a set of strategies for effective communication, including doctors' affective and convergent behaviours such as: code-switching, and positive non-verbal behaviours, such as eye contact and smiling. While some patients used a story-based interaction style to explain their medical needs, others were affected

by socio-cultural taboo practices. The findings of the study supported the need for Jordanian doctors and patients to make extra effort to further develop their verbal and non-verbal communication competence, and socio-cultural awareness during clinical consultations.

List of Figures

List of Tables

Chapter One: Introduction

1.1 Introduction to the problem

This chapter of the dissertation will outline some background information concerning effective communication in the medical consultation between doctors and patients, followed by the problem statement, and aim of the study. Then, the research scope and rationale that the study addresses are identified, followed by the research questions. Finally, an overview of the structure of the thesis is presented.

Research indicates that patients and their carers strongly identify the need for better communication with healthcare professionals, and that poor interaction is the most common reason for complaints towards doctors (Cordella, 2004; Haw et al., 2018). It is important for doctors to listen to their patients so they are able to adequately place their illness in a clinical plan. Good communication is an essential part of ethical and good quality clinical care (Jeffrey, 2005).

Better communication promotes authentic dialogue between patients and doctors and can lead to benefits for both. Patients who understand their doctors are more likely to acknowledge medical issues, understand the nature of the care they are receiving and comply with medication schedule (Travaline et al., 2005). As for doctors, it enables them to have a better understanding of their patients' needs and potentially lead to making more accurate diagnoses (Kee et al., 2018). Furthermore, it fosters a more collaborative relationship leading to job satisfaction among the doctors. (Ranjan et al., 2015).

In healthcare communication, the ideal scenario is that both the patient and the doctor speak the same first language and both parties have a similar level of health literacy and knowledge. However, this is not always the case in D-P interaction in Jordan. Even if they share the same language, miscommunication and misunderstanding can occur due to different levels of

literacy, knowledge and expertise. To generate worthy, purposeful relationships between health staff and patients, reciprocal language and understanding are critical (Mustajoki et al., 2015).

Communication is a crucial component of clinical practice for both doctors and patients. The effectiveness of verbal and non-verbal communication between doctors and patients has a significant impact on health outcomes for patients (Jain & Krieger, 2011). Professionals should be conscious of their own verbal and non-verbal behaviour which may result in different patient outcomes such as satisfaction, trust, and compliance. Non-verbal cues are cues that suggest understanding and caring about the patient which included smiling, head nodding, hand movements, leaning forward, direct body posture, and mutual eye contact.

The quality of D-P relationship, and concomitant healthcare outcomes for the patient, can be enhanced through the use of effective verbal communication. Therefore, specialists in social and therapeutic sciences are becoming increasingly aware of the significance of language in healthcare settings between clinicians, as service providers and patients as service users. Consequently, the utilization of impenetrable technical language can lead to ineffective verbal interaction between the communicators and this may influence the quality of healthcare, trust and patients' satisfaction. Among the linguistic obstacles that may influence the quality of healthcare services are on one hand, the patient's level of literacy, and on the other, the over-use of medical terms and a specialised language for therapeutic purposes by doctors.

This study draws conceptually on Communication Accommodation Theory (CAT), which conceptualizes non-verbal communication as central to in part signaling affiliation with a conversational partner. It also plays an important part in emotion management and the maintenance of the relationship between doctors and patients (Brodie et al., 2016; Jain & Krieger, 2011; Raddawi, 2015). This study also utilized Interactional Sociolinguistics Theory (IST) (Gumperz & Cook-Gumperz, 2012; Tannen, 2005), which aims to examine the function

of language in developing social and cultural relations, and to understand the motivation behind these relations to achieve a common social goal.

Health communication is always expressed in relation to professionals' experience and understanding of the cultural setting of the therapeutic social milieu. Moreover, doctors may have challenges when dealing with patients due to cultural barriers. Healthcare providers and patients in medical settings face linguistic and cultural challenges, which are often exacerbated by the lack of cultural awareness of stakeholders (Raddawi, 2015). Among the cultural differences that influence D-P communication are: Gender differences, patients' low level of education and treatment by alternative traditional medicine. Gender has an effect on communication between doctors and patients. It has been reported that some doctors tend to face difficulties during a medical consultation with the opposite sex (Rocque & Leanza, 2015). Patients' low level of education is considered an additional obstacle that can potentially affect D-P communication which can impact the level of understanding of their doctors' diagnoses and instructions and result in misunderstanding and misinterpretation (Hayes et al., 2017). Some patients disregard doctors-directed treatment recommendations and instead turn to alternative traditional medicines, such as using herbal remedies due to cultural or religious beliefs.

1.2 Problem statement

Unsuccessful communication between doctors and their patients can lead to frustration and frequently gives rise to patients' concerns over not being heard (Coran et al., 2013). This study shed light on language and socio-cultural barriers between doctors and patients and considered the impact of factors such as: level of education, socio-economic status, and gender on doctor-patient's interactions. Jordanian doctors are educated and trained in English as English being the main the language of instruction in medical schools in Jordan (Hamdan & Hatab, 2009).

Consequently, as they frequently use medical English jargon and many lack linguistic accommodation skills and cultural competence, this affected the communication and comprehension of patients who are non-bilingual and from different cultural backgrounds and regions (urban or rural) in Jordan.

Research indicates that patients with inadequate health literacy face many obstacles, including the inability to understand their health conditions and the instructions that they are required to follow in order to manage their illness (Brown, 2016; Koch-Weser et al., 2009; Pagano, 2018; Schillinger et al., 2002) which may lead to several adverse health outcomes. The current study addressed this issue which resulted in a lack of comprehension among patients with limited health literacy (LHL)which caused an inability to express themselves and to comprehend their doctors. To this effect, the study suggested that to enhance health literacy levels for patients, the latter need to have a better level of health education.

1.3 Aims of the research

As previously mentioned, this study was conducted at a public hospital in the South of Jordan. It examined verbal and non-verbal communication through conducting observations and semi-structured interviews with a total of 28 participants including 10 doctors (9 males & one female) and 18 patients (12 males & 6 females). It aimed to examine communication barriers faced by both doctors and patients by using the Interactional Sociolinguistics Theory (IST) (Gumperz & Cook-Gumperz, 2012; Tannen, 2005) and the Communication Accommodation Theory (CAT) (Giles, 1975; Giles & Ogay, 2007; Giles & Smith, 1979) as the basis for analysis. To achieve this overarching aim, this study sought to:

1- Examine and identify the linguistic barriers that cause misunderstanding and confusion during the medical consultation.
2- Understand the role non-verbal communication plays in Jordanian D-P consultation.

3- Identify the socio-cultural barriers that cause misunderstanding and confusion during the medical consultation.

The study sought to answer the following research questions:

Research Question 1 (RQ1): What are the factors that hinder doctor-patient verbal interaction? This question addresses the linguistic barriers that impact D-P communication.

Research Question 2 (RQ2): What are the non-verbal communication benefits and barriers in doctor-patient communication? This question was designed to gain an in-depth understanding of non-verbal communication between doctors and patients when they do not share the same power and cultural backgrounds.

Research Question 3 (RQ3): What are the socio-cultural barriers that cause ineffective doctor-patient communication and misunderstanding?

1.4 Research scope

The research was a qualitative study limited to a purposive sample of doctors and patients. A total of 28 participants took part in the research, including 10 GP doctors (9 males & one female) and 18 patients (12 males & 6 females). The study investigated the barriers between doctor-patient communication in Jordan. It sought to develop an understanding of the influence that verbal, non-verbal and socio-cultural factors have on the doctor-patient interaction. Verbal and non-verbal behaviours provide an in-depth look into the cultural beliefs and assumptions of society members during their interaction in clinical settings.

Verbal communication refers to individual words that have meaning and the content of speech, especially face-to-face. This study highlights some of the key barriers that hinder D-P interaction including lack of 'common' language, lack of understanding and low health literacy as a result of linguistic and language differences among patients and doctors.

Convergence strategies by displaying positive non-verbal cues are seen as an important way to establish a sense of connection with patients which is the core of CAT. Doctors' use of eye contact and smiling emerged as evidence of a vital component for the maintenance of patient-centered healthcare giving, whereas the use of negative non-verbal behaviours, including expansive body posture and higher pitch, was negatively associated with greater dominance. So, this research will aid in understanding the non-verbal cues that play a part in creating and shaping D-P interaction.

Socio-cultural factors should also be considered in attempt to identify the barriers to D-P communication. Cultural beliefs influence the way that patients interact with their doctors and adhere to their medical advice. Socio-cultural barriers that appear particularly relevant include gender impact, patients' low level of education and, patients' preference for treatment by alternative traditional medicine. Other factors that hinder patients from visiting doctors include the unavailability of medicines, patients' ignorance of medical advice and word-of-mouth recommendations. These factors show a glimpse of how cultural barriers may play a role in D-P communication and how not addressing them could lead to poor interaction, non-compliance with treatment and dissatisfaction. Although these factors are examined and there is a need for doctors to be culturally sensitive, the complete role of cultural beliefs in D-P interaction is still poorly understood in healthcare settings in Jordan.

Data was collected from one pubic hospital selected for the study. Only general practitioners that are employed by the government hospitals participated in the study. This research included semi-structured interviews which used a purposive sample of general practitioners and patients in clinical settings. It also included research observations of participants during their interaction in medical consultations. A detailed explanation of the research design is presented in Chapter three.

1.5 Research rationale

For the purpose of examining the face-to-face interaction between doctors and patients during medical consultations, Interactional Sociolinguistics Theory (Gumperz & Cook-Gumperz, 2012) was used in this study. This theory examines how people engage in a conversation reflects their linguistic and cultural background which may cause misinterpretation, or lead to satisfaction. For example, in this study, the IST provided an interpretation of why bilingual participants code switched in their speech and the motivation behind that. Moreover, this theory provided interpretations of how the participants used kinesic cues, pitch and intonation during their interaction. Another theory appropriate to this study was the Communication Accommodation Theory (CAT). CAT theory can help to understand the health communication that is essentially intergroup communication where individuals from different groups can influence each other with different identities (Watson et al., 2016). For example, doctors attempt to use their medical authority to control the nature and content of the medical consultation by using divergent strategies such as "topic switches and style shifting" (Street, 1991).

Doctor-patient communication plays an essential role in a variety of patient outcomes ranging from trust in healthcare to compliance with treatment, and overall satisfaction; however, it is also a fact that linguistic and cultural barriers can and do indeed influence this communication. Although the doctors share the cultural background with patients, the language barriers and the difficulty to translate medical jargon into lay terms (Barrett, 2013) negatively impact the quality of health service delivered and consequently leads to low satisfaction on the part of the patients.

Prior to this research, I had to accompany my mother to the hospital. She was treated with kidney dialysis and she had to be hospitalised for a couple of months. My direct observation of

the poor communication between her and her doctor motivated me to investigate the barriers that influence their communication.

The above story typifies some of the many medical interactions that patients experience in healthcare settings in Jordan. Undoubtedly, the root of most of the communication breakdowns and misunderstandings that cause conflict are the result of linguistic and cultural differences in communication and relationship styles. These differences in communication need to be addressed within a natural healthcare communication setting as they can influence the success of D-P interaction.

English has been the language of instruction in medical science in Jordan since the introduction of English in Jordanian schools which dating back to the early 1920s (Hamdan & Hatab, 2009); accordingly, the native Jordanian-speaking doctors are educated and trained exclusively in English as the medium of instruction in medical science. Code-switching between English and Arabic by doctors may affect patients' comprehension due to little comprehension of medical English jargon and limited health proficiency. Furthermore, because of the influence of English, doctors' linguistic behaviour is intensely impacted, which leads to challenges when dealing with their patients. Although they did their best to avoid medical English jargon, particularly with patients with low levels of education and socio-economic backgrounds, there were some instances where patients did not comprehend their doctors' advice, and as a result, received poor medical care.

Therefore, the rationale of this study extends the body of knowledge about the impact of verbal and non-verbal barriers on D-P communication and could potentially raise greater awareness of doctors' chosen communication style with patients. By analysing doctors' non-verbal behaviours within medical encounters, and gaining insight into patients' satisfaction with the doctor, this may lead to more positive outcomes for both patients and doctors.

Moreover, a few studies identified how socio-cultural barriers can influence health communication in Jordan. Notably, much of doctor-patient interaction research is conducted in other countries. Further, it can help non-Arabic speaking doctors and patients understand the existing issues investigated in this project and the strategies they use to achieve effective and successful communication.

1.6 Structure of the thesis

Chapter 1 introduces the background of the study, its aims, purpose and rationale, research questions and outlines the structure of the thesis.

Chapter 2 describes the theoretical framework of both theories; the CAT and IST for the study by reviewing current literature on verbal and non-verbal behaviours, focusing on positive and negative behaviours that cause critical moments in health communication. It also examines the socio-cultural barriers that impede health communication and factors that influence patient satisfaction.

Chapter 3 outlines the methodological approach used in the research and explains the methods used for conducting the research and the collection and analysis of data. Detailed demographic descriptions of the research participants are provided, including sampling strategies used in the recruitments of doctors and patients. Detailed descriptions of the steps taken to ensure that focus on ethical considerations is maintained throughout the research process

Chapters 4, 5, and 6 present the findings drawn from the interviews and observations based on a selection of themes and provide an explanation of these themes and issues raised. Chapter 4 reports findings in response to research question (1) on verbal communication between doctors and patients. It gives some insight into the verbal barriers that impact their interaction during a medical consultation. Chapter 5 reports the findings of the research question (2) on non-verbal

communication between doctors and patients. It provides an analysis of emerging themes in relation to non-verbal behaviours that can constitute benefits or barriers in doctor-patient communication. Chapter 6 reports findings of the research question (3) on socio-cultural barriers that hinder doctor-patient communication and cause misunderstanding. It gives a short presentation of the central themes of the most important social and cultural barriers identified in doctor-patient communication in Jordanian medical settings.

Chapter 7 includes the discussion regarding the research questions posed for the study. It also summarises the findings associated with each research question by relating them to what was identified in the literature review, providing conclusions as to how the findings have contributed to better understanding the verbal and non-verbal issues of D-P interaction.

Chapter 8 presents conclusions drawn about verbal and non-verbal communication between doctors and patients during a medical consultation, along with the limitations of the research. Recommendations for future research on the topic are also laid out in the chapter.

Chapter Two: Literature review and theoretical framework

2.1 Introduction

This chapter seeks, first to highlight the gap in literature by critically reviewing the existing research outputs in the field of health communication between doctors and patients in Jordan and at an international level. Second, to identify the theoretical framework and theories guiding this research Interactional Sociolinguistics Theory (IST) and Communication Accommodation Theory (CAT), and thus provide a foundation for this research. I intend to examine several relevant literature to discover the potential communication barriers in health communication and the professional strategies that have been used to overcome these barriers. It aims to review relevant publications on the effective D-P relationship that increases health outcomes linked to satisfaction, and the role that communication accommodation plays in the D-P relationship. When reviewing D-P communication and the barriers that impact their communication, a variety of theories can be applied. For the purpose of the research the IST, CAT, and Professional/Healthcare communication will be used as the theoretical frameworks and explained. Thus, this chapter focuses on a theoretical and practical perspective in order to understand the barriers and benefits of verbal and non-verbal communication in healthcare settings.

In Jordan, the majority of the population communicate in the Arabic language, while most doctors are trained in English as the language of instruction and as a result, they speak Jordanian Arabic and Standard English. Hence, doctors may switch from Arabic to English to manifest knowledge, to accommodate and to reveal their identity.

An obvious hindrance to the doctor-patient relationship is the lack of language understanding that is necessary for patients to have a safe and high-quality healthcare (Al-Momani et al., 2017). Lack of understanding between healthcare providers and patients can also be caused by cultural barriers between the two parties. Numerous cultural beliefs about healthcare exist in

the Jordanian community. Culture has been recognized as an essential component in how people experience, distinguish, and comprehend health. It is an integral variable of research in health communication. However, intercultural differences in health communication may come from differences in language and communicative behaviour (Guerrero et al., 2018).

Verbal and non-verbal communication - two different but integrated forms of language - are a significant instrument in doctor-patient interaction. Verbal cues like sounds, words and utterances to share information with others can influence impressions and health outcomes (Senft et al., 2018). On the first medical consultation, the style of communication in which a doctor greets the patient can strongly impact patient-physician communication (Travaline et al., 2005). Thus, it is important for the doctor to be aware of his non-verbal behaviour when communicating with his patients.

This study seeks to examine language and socio-cultural barriers critically in D-P interaction in Jordan. The literature survey will assess only studies that are considered relevant to the Jordanian context, and these have been categorized under the headings: *Language barriers in D-P communication and socio-cultural barriers in healthcare communication.*

Before examining the literature, it is acknowledged that many of the studies discussed in this chapter have been conducted in countries other than Jordan. As such, caution should be used when generalising any findings in the Jordanian context.

2.2 Literature review

The literature review identified several potential communication barriers in D-P interaction such as: language differences, medical jargon, lack of attention and interest, low medical literacy in patients, language proficiency, health beliefs and attitudes, modesty and privacy, gender preference for professionals, family involvement, provider characteristics, high

workload for doctors, lack of medical training in communication skills, preference for traditional remedies, and a poor healthcare system.

Good communication between doctor and patient is vital for effective treatment and adherence, and the quality of this communication is essential for successful risk assessment and management (Cordella, 2004; Pagano, 2018). Failure to communicate effectively can potentially have negative consequences: patients' non-adherence to treatments, lower quality of care and medical errors (Rocque & Leanza, 2015).

2.2.1 Doctor-patient verbal communication

Verbal and nonverbal cues by the doctor and patient are central components in medical consultations. Adequate communication can lead to satisfying D-P relationships, allowing doctors and patients to engage in mutual understanding, reach an agreement on concerns and treatment options and facilitate patients' adherence to treatment. A low level of education, LHL (Bdair & Abushaikha, 2018; Hayes et al., 2017), limited English proficiency (LEP) (Goodwin, 2015; Span, 2006), and English medical jargon (Amp et al., 2013; Farahani et al., 2011; Koch-Weser et al., 2009; Rocque & Leanza, 2015; Taiwo, 2013; Wiener et al., 2013) are the main communication barriers in D-P interaction. For instance, if healthcare professionals are using vocabulary and medical terminology that the patient is less likely to understand, then the goal of the interview will not be achieved (Rocque & Leanza, 2015). Yet, if patients ask questions for clarification their comprehension of what the doctor communicated will greatly improve and will also facilitate the cooperation needed to comply with the doctors' instructions (Aarons, 2005).

Research has identified seven essential phases in D-P communication which include: The D-P relationship building, opening the discussion, info-gathering, understanding the patient's viewpoint, sharing information, reaching an agreement/counseling and terminating the

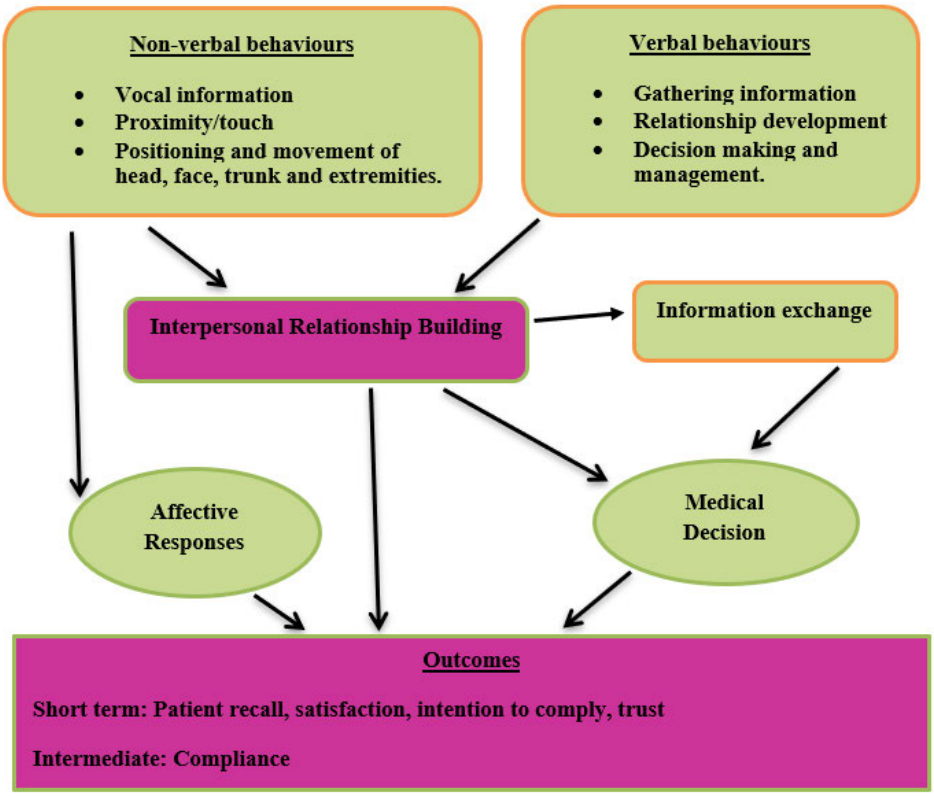
consultation usually by the doctor (Barrett, 2013; Holst, 2010; Matusitz & Spear, 2015; Park, 2009).

A key influential factor and critically crucial for relationship development and maintenance is verbal and non-verbal communication in D-P interaction (Pagano, 2018). Verbal and non-verbal behaviours affect patient outcomes and satisfaction. However, problems can result from linguistic and cultural differences in verbal and non-verbal communication between doctors and patients during their interaction. Beck et al. (2002) developed a theoretical model involving the interchange between verbal and non-verbal behaviours and identified a set of good interpersonal communication characteristics that positively influenced patients' healthcare outcomes in the following Figure (2.1):

Thorough verbal communication increases satisfactory health outcomes including provider statements of reassurance and support (Jibaja-Weiss et al., 2011), patient encouragement (Hesson et al., 2012), longer consultation durations (Galanti, 2014). Other good health outcomes are positive reinforcement (Beck et al., 2002), bringing humour into the conversation (McCreaddie & Payne, 2014), patients revealing their emotions (Steele, 2015), time in health education and information exchange, friendliness (Hillen et al., 2015), courteous behaviour (Fawole, 2014), orienting the patient during the physical examination, and summarisation of recommendations and clarification (Beck et al., 2002). Non-verbal behaviours associated with patient satisfaction and positive outcomes include vocal information (Norris, 2004), proximity/touch (Elliott et al., 2016; Remland, 2017), positioning, and movement of the head, face, trunk, and extremities (Eaves & Leathers, 2018; Pease, 2004; Remland, 2017; Wang, 2010).

Figure 2.1

Domains Of Communication In The Provider-Patient Relationship (Beck et al., 2002, p. 27)



Interpersonal communication can be divided into verbal and non-verbal communication. Verbal communication involves using speech, sounds, words, and utterances in order to exchange information with others. Oral communication happens when an individual sends a message to another using speech, accordingly an effective message helps to gain the listener's attention.

Verbal communication is evidently different from written communication. It can be interpreted in the light of culture, dialect, and regional location of the receiver. Verbal language not only conveys significant data about a topic, it often eliminates the ambiguity of the kinesic cue, particularly given that words can interpret the kinesic cues' meanings (Gerwing & Landmark Dalby, 2014). However, this literature review has revealed that verbal language constitutes

dominant obstacles in communication between doctors and patients. Language barriers result from the lack of a common language (Periyakoil et al., 2015; Raddawi, 2015; Taylor et al., 2013). Other obstacles included limited understanding and self-risk management (McLaughlin, 2009), and low health literacy of patients.

2.2.1.1 Language barriers and use of jargon

In order to have effective communication with patients and to provide safe, high-quality health care, it is necessary to overcome language barriers and understanding of medical terminology. For example, a study by Brodie et al. (2016) in the United Kingdom reveals that South Asian patients rated communication lower than white British patients although they were treated equally and were from the same demographics (such as gender, age, ethnicity, primary language spoken at home, birthplace, etc.). The study analysis further identifies this disparity because of language barriers. Brodie et al. (2016) argued that the most effective approach to lessen the gap in communication among patients will probably need some of these solutions: physicians' awareness of poor language proficiency of patients, acknowledgment of cultural differences in communication and improving patients' education regarding the healthcare system resources and responsibilities.

In their qualitative study, Hunter-Adams and Hanna-Andrea (2017) explore the complexity and importance of language and health communication through the viewpoint of cross-border migrants. These migrants were looking for antenatal care in Cape Town, South Africa in order to highlight the importance of high-quality medical interpretation. The study showed that language barriers result from the lack of a common language. Because of this barrier, patients considered language a kind of discrimination outside the healthcare setting, and migrants were being forced to accept interventions that they did not agree to which led them to view healthcare

in a negative way. However, the findings of this study suggest that it is essential to apply professional medical interpretation to improve healthcare.

While excellent communication in healthcare settings improves the quality of care and increases patients' health literacy, it may produce the opposite effect if a certain type of medical language is used. Periyakoil et al. (2015) has identified the language, and medical interpretation issues have been found to be barriers to doctors in conducting effective end-of-life (EOL) conversations with terminally ill patients in California, United States. These conversations are very challenging, particularly with ethnic minority patients and their families. Their findings confirmed strategies in revealing barriers in doctor-patient interaction while conducting successful EOL conversations. Other researchers stated that medical jargon are difficult to translate into other languages. For example, Landmark et al. (2017) found that language barriers result in disagreement between the doctor and patient regarding treatment.

A study in the United States by Inhorn and Fakih (2006) involving Arab Americans seeking infertility care showed differences in their experiences. Half of the men in the study were either striving to learn the English language or could not speak it at all. Thus, this barrier affected their ability to communicate personally in U.S. healthcare settings. The study revealed that there is a serious need to actively develop and fund research, education, and programs to fight disease, trauma and anxiety, all barriers to good healthcare for Arab Americans.

Many studies have been conducted to determine the impact of language barriers between doctors and their patients (Brodie et al., 2016; Nguyen, 2016; Periyakoil et al., 2015; Raddawi, 2015). Hence, doctors should continuously check their patients' understanding to ensure that their treatment is understood. Thus, this research addressed this issue in relation to the CAT.

Based on power equality and shared decision making, health providers' messages should be clear and conformed appropriately to the patient's health and limited language literacy to enhance patient outcomes (Pagano, 2018).

A review of studies on health communication has revealed that the most identifiable obstacle for patients is medical terminology which can often create misunderstanding and communication difficulties in D-P interaction (Aarons, 2005; Fage‐Butler & Nisbeth Jensen, 2016; Galanti, 2014; Hoang, 2015; Links et al., 2019; Pieterse et al., 2013). It is a doctor's responsibility to use simple language in explaining medical conditions to patients and avoid medical jargon whenever possible (Pieterse et al., 2013).

Before exploring the potential challenge of English medical jargon on health communication, we should determine what is considered to be jargon in the medical field. Fields et al. (2008) defined a medical jargon as "a vocabulary common to a specific group of people, medical professionals in this case" (p. 344). This suggests that jargon are mostly used among doctors and medical professionals but not appropriate to patients as they are not from that particular group.

A study conducted by Links et al. (2019) seeks to describe the common use of medical jargon by pediatric otolaryngologists when communicating to parents in pediatric otolaryngology or a surgical setting in the United States. They found that clinicians used more jargon when parents were involved in informed or shared parent decision-making, which may serve as a barrier to parental knowledge and quality decision making concerning surgical intervention. Researchers believe that successful parental involvement may improve communication between clinicians and parents and create an environment of shared decision making.

A study by O'Connell et al. (2013) aimed to investigate patients' understanding of medical jargon in the breast clinic in the UK in order to identify the terminology that can create misunderstanding for patients. Their results revealed that many of the medical terms used in the consultation were not understood by patients and not clarified due to time constraints. Consequently, these results highlight the need for a clear explanation of medical terminology when communicating with patients about their care.

The written language of medicine that is associated with academic life is different from spoken language (Biber et al., 2002). Furthermore, the use of medical jargon by doctors is directly linked to the medical education they have received. Thus, this may create potential miscommunications between doctor and patient.

2.2.1.2 Health literacy

The concept of 'health literacy' can be viewed from different perspectives with many interpretations. For Peerson and Saunders (2009), health literacy relates to patients within the healthcare environment who have the level of knowledge, personal skills and abilities, such as reading and acting upon written health information in order to communicate their needs to health professionals and understand necessary procedures and directions. In their study, Baker and Gollop (2004) defined health literacy as "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions" (p.337). Health literacy is also defined as "The degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions" (Ratzan & Parker, 2000, p. vi). For example, a person's ability to understand instructions written on prescription drug bottles is crucial.

While many definitions for health literacy focus on the reading and writing skills required to function in the healthcare environment, the definition that has been adopted in this project is, "the wide range of skills and competencies that people develop to seek out, comprehend, evaluate and use health information and concepts to make informed choices, reduce health risks, and increase quality of life" (Zarcadoolas, 2006, p. 55). This definition is selected as it acknowledges that although health literacy is certainly a function of reading and numeracy ability, it also includes the capacity to understand and act on messages that are central to making an informed decision (Liu et al., 2020) in order to maintain and improve health.

LHL may affect patients' ability to understand complex medical concepts like resuscitation preferences (Fowler, 2008; Periyakoil et al., 2015). For example, oncologists often use the word "cure" to indicate survival of five years free from cancer. However, for many cancer patients and their families, this word means eradication of cancer and retrieval of natural health (Periyakoil et al., 2015). Consequently, language barriers can complicate health decisions and impact the quality of care received.

A qualitative study by Barrett (2013) examined health literacy activities and practices employed by primary care safety net organisations in the United States that serve patients at high risk for low health literacy. The study assessed some factors that influence the delivery of primary care safety, including patients' cultural demographics and health literacy, and providers' readiness to work in primary care in a specialty; migration, etc. The study also revealed that staff appreciate the benefit of communicating with patients in lay terms. Triage personnel, nurses, physician assistants, and other service providers appear to have a good sense of finding appropriate ways to break through communication barriers by changing medical terminology or jargon into lay terms or using visual representations of human anatomy to communicate procedures. To enhance safe and empowering delivery of services, patients'

voices should be heard to articulate their needs, and these skills need to be implemented in the healthcare system when they access their familial and community networks. Health literacy was viewed by staff as essential to the delivery of quality and safety healthcare to patients.

Acquah (2011) conducted his study in the Republic of Ghana and demonstrated that the issue of limited health vocabulary in one language was a challenge to doctors when transferring medical vocabularies to the indigenous dialects and a challenge associated with explaining the diagnosis using the indigenous language. He added that the issue of limited health vocabulary could be further reduplicated in circumstances where a patient is less educated. Illiterate patients expressed difficulty when trying to explain or understand their health condition. Furthermore, they may not know the technical terms to describe their symptoms in a way doctors can understand (Galanti, 2014).

Patients whose level of education would most likely make them unable to comprehend doctors' use of English medical jargon would likewise result in failing to understand their diagnosis and treatment. Similarly, a study by Nguyen (2016) has revealed that a level of education and language barrier can negatively affect how a patient understands their diagnosis and health condition. The study examined seven patients previously diagnosed with breast cancer and seven healthcare providers involved with the patients' medical care. It explored how underserved Latina breast cancer patients experienced their treatments despite having multiple social disadvantages and how they perceived their treatment experiences. The HPs demonstrated that language barriers and limited resources might delay treatment and could lead to patients' dissatisfaction. Regardless of the language barriers in this study, family members that served as interpreters helped patients to build a good relationship with their health providers. This study recommended overcoming these barriers by educating patients on their illnesses, providing them with appropriate resources and offering interpreting services.

In light of this literature review, it is evident that the impact of miscommunication results from an incompatibility of the language of instruction of medical studies, limited English proficiency, low level of education, and the daily language used by patients. In some cases, miscommunication may also occur when a doctor and patient have different first languages or come from very different language and cultural backgrounds, and in some cases, miscommunication occurs even when doctors and patients share similar cultural and linguistic backgrounds.

2.2.1.3 Limited understanding

Sometimes, the patient does not comprehend the doctor's medical instructions which results in non-commitment to treatment. To ensure that the patient understands what the doctor says, an appropriate level of education is necessary for proper treatment to be received (The Joint Commission, 2007; Improta, 2011; Nguyen, 2016). Patient non-compliance with doctor's recommendations is a serious obstacle to the D-P relationship and can adversely affect the patient's overall health quality (Domingo, 2010). M. Khan et al. (2014)'s study showed that most hypertensive patients who were less than 60 years old were non-adherent to the dietary recommendations. Self-reliance, less peer-influence, and a decrease in fast food consumption were factors that significantly increased compliance among older patients. This non-compliance was due in part to patients' limited health knowledge regarding the severity of the disease on their health. Therefore, the results suggested the importance of extensive counseling to patients about the severity of the illness and potential consequences. Effective D-P communication has the potential to facilitate a more satisfied patient and, consequently, a more adherent patient.

Effective D-P communication involves the exchange of information to increase patient compliance. In an assessment of how patients' beliefs and preferences about medication

prescribing might affect medication compliance, Goff et al. (2008) found that patients desired trust and a role in shared decision making about medication prescribing to match their level of engagement with their beliefs and preferences. Specifically, participants stated that they wanted their doctor to explain the risks and benefits of treatment options. They felt that good communication contributed to their comfort and adherence in their doctor's medical advice, and conversely, poor communication was felt to lead to a reduction in confidence in medical advice.

While patient education produces patient adherence, it does not contribute to medication compliance as shown in the study by Krot and Rudawska (2019) in Poland. The researchers conducted a study with Polish respondents to investigate the correlations between adherence to doctors' recommendations and the patient's satisfaction along with the influence of their demographic characteristics (sex and educational background). Their study revealed that the sex variables affected the correlation between patient satisfaction and forgetting about doctor medical advice and that men were more satisfied and less likely to forget their doctors' advice while women were less satisfied and more likely to forget their doctors' instructions.. The study also took into account the influence patient's level of education, patient satisfaction and forgetting about doctor's medical advice. The results of the study indicated that the less educated patient was satisfied and complied more with doctor recommendations.

If patient satisfaction affects his or her adherence to doctor recommendations, then the doctor's communication style is an important contributor to adherence to treatment. Within this review, patient outcomes, such as satisfaction with doctor's behaviour, adherence to treatment recommendation and cultural practice will be explored.

2.2.2 Doctor-patient non-verbal communication

The non-verbal communication is divided into seven different cues: paralinguistics (volume, pitch, and speed), haptics (physical contact), kinesics (body language), proxemics (personal space and distance between people), Artifacts (physical appearance, perfume, clothing and body adornments), Chronemics (the study of time) and Oculesics (the study of eye behavior) (Pagano, 2018). The two dimensions of nonverbal communication, such as Artifacts, Oculesics and Chronemics, and others would not be reviewed as they are not the focus of my project and I would review those nonverbal dimensions that are relevant to my research focus and data.

2.2.2.1 Paralinguistic cues

Pagano (2018) identified three main components in paralinguistics, which involve how something is said, not what is said. The three components include:

1. Volume: depends upon the patient's hearing acuity and his perception of voice
2. Tone: should be patient, soft, positive and communicative
3. Speed: doctors may need to slow down their speech.

Importantly, the paralinguistic aspects of speech serve several communicative functions. They detect emotions: they also add emphasis to a certain part of a message, create a distinctive identity and regulate the interaction flow via gestures (Martin & Nakayama, 2010). For example, doctors speaking to their patients with greater pitch may be perceived as dominant (Kiese-Himmel et al., 2012; Mast & Cousin, 2013) or emotionally incompetent (Kee et al., 2018).

2.2.2.2 Haptic cues

Haptics is the study of touch in non-verbal communication. Dunn and Goodnight (2016) described touch behaviours as forms of non-verbal communication that convey a wide range of emotional expressions, such as happiness, delicacy, attention or love. While touch signals a desire for closeness and immediacy in interpersonal communication, it could be seen as

aggressive or outright violent (Eaves & Leathers, 2018). According to one's cultural background, people have different views on touching each other. For example, touch is not tolerable in many Arab and Muslim societies because of the fear of misinterpretation (Martin & Nakayama, 2010).

When it comes to clinical care, touch is a dominant form of non-verbal communication used during medical consultations. Clinical touch is necessary for the purpose of diagnosis; however, non-clinical touch would make some feel uncomfortable. Research has shown that patients respond differently to touch based on their gendered dynamic of the interaction and social conventions (Galanti, 2014; Harford & Aljawi, 2013; F. Khan et al., 2014; Tackett et al., 2018).

2.2.2.3 Kinesic cues

Kinesics includes the study of facial expressions (e.g., smiles, grimaces), gestures, eye behaviour, postures and movements (e.g., head nods, leaning forward, finger tapping). D-P relationship can be enhanced through nonverbal communication behaviors that convey a sense of interpersonal closeness, which is also known as immediacy. Immediacy includes nonverbal behaviors that exhibit interest and approach, such as smiling and postural shifts (Mitchum, 1989), body and head orientations, moderate body relaxation and initiating and maintaining eye contact (Eaves & Leathers, 2018). Research has demonstrated that these forms of non-verbal communication have a positive impact on patient satisfaction (Mast, 2007; Mast & Cousin, 2013; Palomares et al., 2016). For example, the importance of eye contact in doctor-patient interaction has frequently been the subject of research (Remland, 2017; Roberts & Sarangi, 2005; Roberts & Bucksey, 2007). In Kee's et al. (2018) study, lack of eye contact was resulted from computer use and patients took this lack of eye contact as a sign of miscommunication.

2.3 Sociocultural barriers to healthcare communication

Beyond language and correct diagnosis, in today's increasingly diverse society, doctors are faced with patients from different cultural backgrounds. Cultural and religious beliefs are responsible for the gender preference of doctors and for preferences in alternative medicine. Any attempt from the doctor in understanding cultural beliefs is important to facilitate communication during treatment and any lack of understanding about cultural beliefs will result in patient's non-compliance, mistrust, and overall dissatisfaction.

2.3.1 The influence of culture on health communication

Research has shown that D-P encounters are affected by the cultural background of patients (Alabdulaziz et al., 2017; Shaw et al., 2015; Torres, 2004). Neuliep (2015) defined culture as "an accumulated pattern of values, beliefs, and behaviours, shared by an identifiable group of people with a common history and verbal and non-verbal symbol systems" (p. 17). The literature review on health communication and culture has often highlighted the importance of culture and its influence on health communication. Cultural differences constitute a significant barrier to effective healthcare communication (Alabdulaziz et al., 2017; Harford, 2015; Jain & Krieger, 2011; Shahid et al., 2013; Shaw et al., 2015). Indeed, culture has been observed to cause misunderstanding, less adherence and less satisfaction. The medical consultation is indirectly influenced by the patient's religious, social and cultural values. Therefore, it is important that a doctor should understand a patient's background, goals, culture, and beliefs to avoid any adverse outcomes that would negatively hinder the protocol of medical treatment (Improta, 2011).

The term cultural competence refers to "the set of congruent behaviours, attitudes, and policies to support cross-cultural work" (Alper, 2018, p. 6) which requires medical awareness, skills,

and attitudes needed in order to effectively deal with different cultural backgrounds of patients and to successfully manage and reduce misunderstanding and conflict.

There is a substantial history of scholarly research recognised in the last decade which includes cultural competence as a necessary issue for health communication and positive health outcomes (Brodie et al., 2016; Jowsey, 2019; Lee & Kim, 2017; Raddawi, 2015). Baker and Beagan (2014) asserted in their study in Canada, that doctors should learn about cultural competence, rather than learn about patients' healthcare issues. Their findings suggested that neutrality reinforces positive interaction between doctors and patients. Regarding patients' cultural backgrounds, it will be essential for countries to energetically gather more data on patient characteristics to deliver more patient-centred care (Brodie et al., 2016). Hence, verbal social support (Nazione et al., 2016) and intercultural non-verbal communication knowledge is useful and powerful (Yang, 2017a).

A recent study by Magaña (2019) in California, United States acknowledges that doctors must be culturally and linguistically competent in how Latino patients use metaphorical expressions in health in order to avoid or have to repair misunderstandings caused by cultural barriers. In her study, Magaña (2019) uses a linguistic perspective which focuses on how 23 patients of Mexican-origin express their health issues using linguistic approaches during psychiatric encounters conducted in Spanish and how they negotiate depending on their cultural contexts. Her study findings reveal contrasting references to sets of metaphors between a doctor and his patients, which cause miscommunication.

In the Jordanian community, there are some religious and cultural beliefs about healthcare. Examples of such beliefs include hesitation in disclosing sexual health issues, cross-gender interaction, people's perception of traditional medicine.

2.3.2 Sexual healthcare studies

Previous studies have shown that a lack of communication in cross-gender interaction was related to embarrassment and social values (Adams et al., 2017; Naseem, 2018). A professional practitioner needs outstanding competence when dealing with patients' sensitive issues and respecting his/her personal beliefs in order to increase his trust and faith because a lack of confidence can lead to a lack of compliance and adverse health outcomes. (Galanti, 2014). Müller et al. (2014) defines taboos as "prohibitions on behaviours, both acts and utterances, that a particular society forbids or encourages its members to avoid" (p. 1523).

The majority of sexual health communication research has been focused on addressing the taboo health issues in Western, African, and Eastern Asian countries , with very little in Arab countries. For instance, young people in India are afraid to communicate their sexual health issues to their providers, which constitutes as a taboo issue (Vemula, 2018). For this reason, in some Indian states, sex education has been banned in schools for fear that it would have an undesirable influence on school students' minds. Acquah (2011) summed up the reason behind patients' refusal to disclose information in Ghana is because of the nature of their illness. In her study, doctors reported that patients seemed reluctant to share and disclose sensitive information such as sex and the reproductive organs and also had a fear of disclosure of gonorrhoea or HIV/AIDS due to stigma and embarrassment. For example, in her study, Dr Issaka, one of the participants, clarified:

> *"When a patient's problem is a little bit on the private side, especially when it has to do with pelvic region, or with respect to sexual activity, it takes a long time to tease the information out of the patient. And that is because some people have deemed it as culturally inappropriate to talk about these things…you can't just come and talk about coitus in front of an unknown person"* (pp. 93-94).

Timraz et al. (2017) explored that a lack of trust in disclosing sensitive information was a challenge in conducting sensitive research with an Arab American (Ar-Am) population in the United States. The majority of Ar-Am female survivors were reluctant to disclose their previous child sexual abuse (CSA) or their post-partum depression (PPD) with an outsider like the researchers. The researchers acknowledged that mental or sexual health issues are uncommonly discussed among Arabs. To facilitate building trust, the study employed some strategies, such as the primary researchers being from the same cultural background and gender of recruited women and allowing much time during the recruitment process in order for women to ask questions before they were engaged in the study.

Bye et al. (2018) conducted a mixed-measures survey in the UK with pregnant and postnatal females with Eating Disorders (ED) that typically cause adverse maternal and infant outcomes to females of childbearing age. The study has revealed 26% of females reported disclosing their ED to a healthcare provider engaged in their antenatal care, 72% of females did not disclose and 71% mentioned the reasons of their refusal: stigma and taboo, lack of opportunity, preference for self-management, current mental health status and awareness of ED. The study insists on supporting effective identification of ED and addressing the broad range of ED which may contribute to reducing stigma, avoiding discrimination, and raising awareness among women during and after pregnancy.

Sexual health-related topics are considered unacceptable or taboo in several cultures, including the Arab Islamic culture. However, Islam does not prohibit the discussion of sexual health topics with patients when sexual health is considered a significant aspect of quality of life and will speed up a patient's healing. In Islam, sexual health-related topics have been dealt with in the Quran and Hadith as sex is considered a blessing to individuals bringing peace and calmness

to the foundations of life (Khan & Khan, 2015). In explaining this openness in Islam, Aisha, the wife of the Prophet Mohammed (may peace be upon him), said:

" نِعْمَ النِّسَاءُ نِسَاءُ الأَنْصَارِ لَمْ يَكُنْ يَمْنَعُهُنَّ الْحَيَاءُ أَنْ يَتَفَقَّهْنَ فِي الدِّينِ."[1]
[How good are the women of Ansar (helpers) that their shyness does not prevent them from learning religion.]

What Aisha is insisting is that female Muslims should seek knowledge about sexual issues, and nothing should prevent them not even embarrassment. Therefore, it must be understood that Islam deals with sexual issues seriously, and Muslims should be aware of the educative aspects of sexual health for a healthy, happy life (Khan & Khan, 2015). However, due to the cultural taboos, Muslims are often reluctant to share or disclose sexual health topics which leads to delays in seeking medical help for their illness (Sheikh et al., 2008).

In Muslim communities, in order to establish a strong, therapeutic relationship with patients, culturally sensitive communication and demonstrating an understanding and respect for patient beliefs is required. For instance, discussing sexual matters is not encouraged, and talking about sexuality is considered taboo in Jordan (Al-Shdayfat & Green, 2012) which constitutes a barrier when seeking sexual consultation (Al-Momani et al., 2017).

Doctors should use appropriate non-verbal communication during medical encounters in order to effectively and therapeutically communicate with patients (Matusitz & Spear, 2015). For example, touch has been considered an effective means of establishing rapport and involvement with the patient (Remland, 2017; Roberts & Bucksey, 2007). However, there are situations in which touching is inappropriate in the clinical setting which is specifically constructed by gender (Larsen & Smith, 1981; Tackett et al., 2018; Zhang & Liu, 2016). Physical examinations may require the doctor to touch for the necessity of touch in diagnosis (Raffler-Engel, 1989).

[1] Sahih Muslim 332 c

Thus, the use of touch is highly dependent on the situation, relationship, and the manner of touch. In order to avoid communication barriers in healthcare, physical touch especially breast and pelvic exams, for female patients carried out by male doctors should be done in the presence of a third party, preferably a female relative (Tackett et al., 2018).

Jordanians, particularly those living in the rural areas, tend toward a collectivist view of society and are relatively conservative in relation to cultural norms involving sexuality. It is unacceptable and taboo to debate sexual information even within families (Al-Khasawneh, 2002; Gausman et al., 2019).

Al-Momani et al. (2017) stated in their study in Jordan that men were hesitant to talk about their sexual health problems with female nurses or doctors, even nurses that knew them personally. They also referred to the fact that doctors would not pay attention to them or provide information when men talk about their sexual problems. This makes speaking about sexual issues even with female nurses more popular among females than males in Jordan. However, females may still feel uncomfortable talking about health issues even to female nurses, probably because of cultural beliefs.

Bdair and Abushaikha (2018) conducted a descriptive study in Jordan aiming to assess Jordanian patients' knowledge related to resuming sexual health after coronary artery disease (CADs). The study revealed that patients have some awareness of sexual health discussion; however, factors that influence sexual health topics include shyness and embarrassment, limited information regarding sexual health assessment, lack of private rooms, and educational resources. The researchers insisted that health education provided to patients can overcome these barriers in order to improve their sexual health.

To our knowledge, there are currently few studies focusing on sexual health issues and their impact on D-P interaction in the Arab world, particularly in Jordan. Therefore, this conducted

research project aims to investigate the role of culture on D-P communication in order to improve sexual health communication.

2.3.3 The impact of gender on D-P communication

Studies have shown differences in health resulting from essential variances between people of different genders, races, ethnicities, socioeconomic statuses and geographic locations (Eberhardt & Pamuk, 2004; Hartley, 2004; NIH, n.d., as cited in Ahmed, 2007). A study by Degni et al. (2012) aimed to explore communication between health providers and Somali females when providing reproductive and maternity healthcare in Finland. Their findings suggested that addressing structural barriers and cultural barriers in care should be considered. The providers' perception was that most Somali women prefer female doctors when discussing sensitive or taboo issues such as contraceptive use, physical and gynaecological examination due religious and cultural reasons. Doctors' gender issue made doctors feel frustrated, particularly when some Somali females refused medical interventions.

In the United States, Inhorn and Fakih (2006) found that male participants sought diagnostic and treatment services from Arab American (Muslim) doctors, whom would respect their cultural and linguistic understanding. Gender attitudes and health beliefs cause difficulties in gender arrangements. A study by Taylor et al. (2013) aimed to investigate whether patients from ethnic minorities with poor or no English language skills, particularly from Pakistan, India, Bangladesh, Nepal and Sri Lanka encountered any barriers when accessing health care in the UK. The study showed that females, particularly Muslims, encountered problems with gender attitudes, resulting in interpretation problems, wasted appointments or time and uncertainty over informed consent. If the staff's gender is not previously known, the female patient is not allowed - by male members of her family, mainly Muslims - to be examined by a male doctor even if a female nurse was present.

In Saudi Arabia, some Saudi women, for example, might be comfortable in discussing with a male healthcare provider if they were accompanied by a close male relative. Western trained male doctors and nurses should ask for permission to touch for hands-on medical care in the case of a female Muslim patient.

A study by Akhu-Zaheya and Masadeh (2015) demonstrated that discussing sexual health issues is considered a sensitive topic in the Arab-Muslim Jordanian culture. Gender differences are barriers to cardiac patients when discussing sensitive sexual health issues with health providers and asking about their sexual health life.

Fear of stigma and shame is one of the factors that impact informal, female carers of mentally illness husbands or sons who suffer from domestic violence and physical abuse whilst in the caring role as is shown in a study by AlMakhamreh (2018) in Jordan. The study demonstrated that gender attitudes influence male and female informal carers in feeling uncomfortable and embarrassed when disclosing or discussing sensitive marital issues which may result in health inequality and social isolation. As the Jordanian culture is collective, the study suggested establishing community centres with the morals of a collective culture to help raise awareness and educate informal carers, particularly females in developing the mental healthcare system in Jordan.

2.3.4 The significance of patients' education

Differences in education level and social class can create barriers that impede effective communication (Scheppers et al., 2006). There is no doubt that education plays an essential role in the quality of healthcare treatments. Low literate patients are not capable of relating the symptoms of their illness naturally in a designed and accurate way (Mustajoki et al., 2015). There may also be a requirement for more examination by clinicians to less educated patients who may face mental and intellectual obstacles when communicating.

Alkatheri and Albekairy (2013) aimed to evaluate patients' level of education, its effect and former counseling on medication knowledge among a sample of 90 patients visiting King Abdul Aziz Medical City, a tertiary care centre in Saudi Arabia. The study demonstrated that patients of a higher level of education would understand their doctors and have excellent knowledge of their medications. It was also revealed that age was significantly related to patients' education. The authors suggested to design and implement a patient-counseling program based on patients' level of education in order to improve medication knowledge of their medications, particularly side effects. Perhaps, these programs will facilitate the medical diagnosis that will enhance patient health outcomes.

On the other hand, social class may cause inequality in health communication. Social class was determined by education in a study by Verlinde et al. (2012). In their review of literature, patients of a higher social class usually received more information and were more engaged than patients of a lower social class overall during the communication.

2.3.5 Traditional medicine

The use of traditional medicine (TM) has continuously increased over the past decades with practices based on theories, beliefs and experiences of an indigenous culture used in the maintenance of well-being, treatment, diagnosis, or prevention of illness. These practices incorporate plant, animal, mineral-based medicines and spiritual and healing practices found in every country.

Latha (2009) defined "Traditional medicine is a method of healthcare which gives a wide range of cost-effective natural therapies" (as cited in Sevim, 2011). Traditional medicine is known by many different terms including alternative medicine, complementary medicine and alternative therapy. Some studies showed that patients usually do not stop treatment by traditional medicine. For example in Enugu, Nigeria, Ezeome (2010) elucidated that among the

reasons for postponement between early consultation and the final treatment is that patients continued treatment with alternative medicine practitioners, alternative medicine and prayer house treatments.

Arabic traditional herbal medicine is an element of modern life in the Middle East today and traditional herbalists are popular in many Arabic communities (Azaizeh et al., 2010). For Arab Muslims, illness and death should be received with patience, meditation, and prayer. Illness is considered a natural occurrence as well as a test of faith, chance for a superior reward if accepted with patience, or as atonement for sins (Lovering, 2008).

After highlighting the gap in the literature that this study seeks to fill, a variety of theories can be applied to explain how verbal and non-verbal communication between professionals and patients is achieved and the factors that hinder their communication during medical consultations.

2.4 Theoretical Framework

D-P communication can be analysed using interpersonal communication aspects of *IST*, Professional/Healthcare communication, and *CAT*.

2.4.1 Interactional sociolinguistics theory

As introduced earlier, for the purpose of examining D-P communication, IST will be investigated. Thus, in this section, I will review face-to-face interaction. Second, I briefly review extant literature on register that was adopted by doctors during treatment and third, I move into a discussion of literature that focuses on language and power.

2.4.1.1 Face-to-face interaction

The principles of IST highlight the importance of the interactional, social and cultural contexts of any discourse behaviours. This theory assumes that communication in face-to-face

encounters between speakers and listeners is concerned with interactive mutual moves and countermoves to achieve overall expressive interaction (Gumperz & Cook-Gumperz, 2012).

The IST aims to examine how individuals engaged in speech associated with the verbal processes achieve their communicative goals in real-life situations. It also aims to detect to what extent speakers' linguistic and cultural background meets either potentially satisfactory interaction or causes misinterpretation (Gumperz & Cook-Gumperz, 2012).

The significant theoretical contribution of interactional sociolinguistics is to illustrate that socio-cultural knowledge does not stand on beliefs and judgments external to interaction, but rather is embedded within the content of utterances and behaviour in the interaction itself (Bailey, 2008). For example, in this project, the use of IST was to provide interpretation for the use of code-switching (CS) as it cannot be taken for granted. Its concern was to describe why bi/multilingual code switched in their conversations and what particular motivations there were for their code-switching. Blom and Gumperz (1972) defined CS as a term commonly used to refer to alternation among different linguistic varieties within the same speech event. They categorised CS according to motivations: situational and metaphorical. They explained that bilinguals switch due to situational changes, for instance, two individuals are talking in one language but then switch to another when another person joins in. In contrast, metaphorical CS takes place to convey a social meaning such as to express group solidarity. Ten years later, (Gumperz, 1982a) they defined CS as "the juxtaposition within the same speech exchange of passages of speech belonging to two different grammatical systems or subsystems" (p. 59). Gumperz (2005) regarded CS as a contextualization cue which refers to any verbal sign that interactants strategically use to mark their utterance. In this research, based on these definitions, CS is observed as a mixture of two languages, in this case Arabic and English within an utterance.

IST provided an interpretation of how the use of kinesic cues, pitch, intonation can shape verbal interaction between doctors and patients. Gumperz (1982a) maintains that these "contextualization cues" function as signalling mechanisms used by speakers to indicate their intention when interpreting their utterance (Gordon & Kraut, 2018).

Its analysis is appropriate to all kinds of communicative contexts, as a means of supervising the communication processes that are so vital in life institutions. Researchers of interactional sociolinguistics examine audio/videotaped conversation, to identify interactional verbal and non-verbal communication. The backbone of IST is the detailed transcription of audio and/or video-recording of interaction (Rampton, 2020) and careful linguistic transcription of recorded conversation (Gordon, 2011).

2.4.1.2 Register

Another aspect of the interaction process is the use of different *registers* adopted by doctors during treatment. A register generally represents definite ways of speaking connected with specific occupations or social groups. Agha (2006) describes a register as 'a linguistic repertoire that is associated, culture-internally, with particular social practices and with persons who engage in such practices' (p.24) (as cited in Wardhaugh & Fuller, 2014). Shore (2015) argues that registers are associated with all types of social institutions and uttered by a particular occupational group, such as in doctor-patient conversations. It is very likely that patients with a low level of education may prefer their doctor to use a lower register (Li et al., 2016). Few studies have investigated this aspect, which is an essential part of accommodation and interpersonal D-P interaction. Hence, IS theory was employed in this project to explain how doctors use 'register' in medical encounters and to offer interpretations when communication breakdown occurs (Gordon, 2011).

2.4.1.3 Language and power

The central concern of IST is to examine language and power. For example, Gumperz (1982b) addressed in his work how individuals use language to achieve their communicative goals. In his micro-analyses of recorded interactions, Gumperz addressed the racial equality, discrimination, class stratification and gender relations (Irimiea, 2018). Respecting language and power, this project investigated how power distance 'dominance' was exercised in medical encounters between doctors and patients in Jordan.

The fundamental, theoretical contribution of interactional sociolinguistics is to show how human actions depend on a variety of interactionally well-known cultural practices; that is, essentially needed to be explored in intercultural communication (Gumperz & Cook-Gumperz, 2012).

In interpreting the qualitative findings, the approach of interactional sociolinguistics (D-P interaction, education, gender, and social status) was integrated into this research.

2.4.2 Professional/Healthcare communication

According to Pagano (2018), health communication is defined as "any exchange of information (verbal, non-verbal, or written) that relates to an individual's or the public's health (clinically, pedagogically, politically, professionally, institutionally, economically, commercially, legally, etc.)" (p. 2). Effective health communication between the patient and the health professional has become widely recognized as essential to quality health care, patient treatment compliance and patient satisfaction (Cordella, 2004; McCabe & Healey, 2018; Pagano, 2018; Pechak et al., 2019; Ruben, 2014). Poor communication between a doctor and a patient can lead to miscommunication of information, mutual distrust and can result in various negative outcomes (Bye et al., 2018; Clipper, 2015; Elliott et al., 2016; Haw et al., 2018; Ohana & Mash, 2015; Penn & Watermeyer, 2017). Because the language of modern

medicine differs from the everyday language spoken by ordinary people, the result may be poor health communication between doctors and patients. In a more recent study Zhao et al. (2019) noted that patients' limited proficiency caused them to experience anxiety and discomfort when using their or second language (L2) in seeking or providing information about health: this may lead to a reluctance to communicate. Thus, when the linguistic background of patients differs from medical staff, miscommunication is exacerbated.

The other possible reasons why doctors used the English terminology or medical jargon in their interaction with patients were because they were used to the terms in English, and the availability of the English terms in the doctors' linguistic repertoire. According to Milroy and Muysken (1995), personal experiences affect the speaker's choice of preference, which includes their social and educational factors. Thus, language codes may be switched at any point in the discourse due to the bilingualism of the doctors and their language preferences. Evidently, although the aim of communication should be comprehension, using specific terminology indicates an attempt to assert one's identity. Watson et al. (2016) highlighted that doctor used nonaccommodative strategies to secure intergroup dominance and assert their professional identities in written communication and shift duties, and their dissatisfaction with other specialties. The other factor that could affect the language choice or register used by doctors is the workplace culture. Indeed, workplace culture can be extremely influential on the behaviour of employees where they communicate actually using English or specific terminology on a daily basis (Louhiala-Salminen et al., 2005).

For this reason, this study would like to investigate the factors that hinder D-P communication in Jordan and the strategies used by doctors when communicating with their patients of LEP and LHL.

Kachru (1986) drew on post-structuralist perspectives on the nexus between power and knowledge conceived by Foucault (1984) to examine the powerful status of the English language globally and its influence on social, economic and political relations around the world. This is evident in Jordan, where patients with low literacy face difficulty when they communicate with their doctors. Therefore, there is a need to improve patient communication and engage with them positively to promote efficient and effective healthcare.

Better communication leads to an extended dialogue, which can influence patient perceptions about their health problems, the quality of care they receive and to make more accurate diagnoses (Belaskri, 2012). However, Hagstrom (2004) indicated that inadequate or unsatisfactory D-P communication is the most common reason for low patient satisfaction and often leads to decreased patient compliance. In addition, similar to all human communication, health communication can take various forms and take place in various contexts. An essential difference in human communication is between verbal and non-verbal communication, which can take the form of intrapersonal or interpersonal communication (Berry, 2006). This research draws on relevant and recent literature to examine verbal and non-verbal dimensions of D-P communication in Jordan with reference to their gender, age, and social status factors. One theoretical framework that helps to examine communication behaviours of doctors and patients is CAT. It predicts why, when and how they adjust their linguistic and behavioural choices during their interaction.

2.4.3 Communication accommodation theory

At its essence, CAT centres both on verbal and non-verbal issues of interaction. As a starting point, when people meet each other they unconsciously start to synchronize components of their verbal (e.g., accent, speech rate) and non-verbal behaviour (e.g., kinesic cue, posture). This communicative adjustment is the core of Communication Accommodation Theory (CAT).

The accommodation model is a psychosocial model that was initially developed by Howard Giles and his associates (Giles, 1975; Giles & Ogay, 2007; Giles & Smith, 1979). They assume in their model that people tend to accommodate their speech style to their interlocutor(s) because of the speakers' desire to receive the listeners' social approval (Giles & Smith, 1979).

CAT theory has much popularity, particularly in health contexts and in the commonly applicable areas of interpersonal and intergroup contact (Giles, 1975; Giles & Ogay, 2007; Giles & Smith, 1979; Palomares et al., 2016; Watson et al., 2016). As medical consultations are considered to be intergroup communication settings where communicators are from different groups and mutually influencing each other simultaneously, the CAT theory helps to understand how this communication is influenced by their identities during health communication (Watson et al., 2016). When a doctor adapts his communication style to meet the needs of his patient; for example, by talking more slowly, this would reduce the linguistic differences between them (Watson et al., 2016).

When healthcare providers converge their speech with patients, this convergence has a positive effect on patient agreement to medical instructions (Hajek et al., 2007). Conversely, the strategy of divergence is often considered a tactic of social dissociation (Giles, 1980). As an example, doctors may enhance their power and their medical authority to control the communication about an illness by using divergent strategies such as "topic switches and style shifting" (Street, 1991).

2.4.3.1 Convergence

Convergence has been defined as "the process whereby individuals shift their speech styles to become more like that of those with whom they are interacting" (Giles & Smith, 1979, p. 46). When individuals converge, their convergence is for social approval from their interlocutors, accommodative involvement, and/or effective communication with one another (Giles et al.,

1987). According to Dragojevic et al. (2016), speakers will likely converge more to the idiosyncratic, communicative behaviours (e.g., speech rate, kinesic cues) of others in order to appear more similar to them.

Convergence is one of the accommodation strategies that patients prefer when communicating with their doctors which lead to improved satisfaction as shown in a study by Ahmed and Bates (2016). Their findings revealed that patients prefer doctors who converge by using emotion management strategies when reassuring them and reducing their anxiety. To this effect, the message in verbal communication can be immediate, obvious, and objective (Raddawi, 2015). When speakers adjust their verbal and non-verbal communication, however, they highlight similarities (in terms of language, kinesic cues, themes, and other aspects.) among themselves and another person: this is identified as convergence. Doctors can converge their speech with patients regardless of their different social groups, by interpreting their medical case or the recommended treatment using easy-to-understand language (as opposed to using medical jargon) (Wright et al., 2012).

In healthcare communication, Candlin and Roger (2013) stated that a practitioner might switch from using medical jargon to lay expressions to ensure the patient's understanding who may be from another locality and speak a different dialect. Watson et al. (2016) argued that CAT theory can help to understand how communication is influenced by the intergroup context and professionals' social and professional identities during their healthcare interactions by converging their speech to meet the needs of the patients or diverging and becoming more linguistically distant. In this research, Code-switching (CS) is defined as a linguistic interchange in the form of doctors' verbal communication to an alternation in context. CS has been studied extensively in the educational workplace, for educational purposes (Al Masaeed, 2013; Mahsain, 2015; Moodley, 2007) and in dialects studies (Almhairat, 2015; Hayek, 2016).

Few studies have examined the CS process in the healthcare environment (Alhamami, 2019). Singo (2014) states that CS is a strategic tool for effective communication in D-P interactions, particularly when the conversation is in the second language. It can convey the message, converge with the client, maintain interpersonal relationships and address taboo issues.

In their study, Bourhis et al. (1989) found doctors felt that it is more suitable for health professionals to converge to the everyday language (EL) of patients rather than maintain technical medical language (ML). Their study suggested that health communication courses for doctors and nurses should promote sensitivity to the diversity of speech registers in order to enhance their ability to communicate more effectively with patients.

2.4.3.2 Divergence

In some consultations, doctors may maximise their power over patients and behave contrary to the interest or desires of their patients (Giles et al., 1991; Watson et al., 2016). For example, doctors may want to finish the consultation quickly and get their patients to approve the recommended course of action (Dryden & Giles as cited in Giles et al., 1991).

Divergence may occur when health professionals communicate medical advice to their patients and use medical jargon to persuade patients to agree to a treatment option. In such an instance, providers may patronise patients (e.g., speaking to the patient as if he or she is a child) (Wright et al., 2012).

A study was conducted by Jain and Krieger (2011) to understand the communication strategies used by international medical graduates (IMG) in medical encounters used to cope with language and cultural barriers. It revealed that divergence is valuable for them to maintain cultural and linguistic differences between themselves and their patients. While verbal strategies involved efforts to calm and reassure the patient, non-verbal strategies involved empathetic kinesic cues such as supportive touch, eye contact, and respectful silence (Jain &

Krieger, 2011). The researchers recommended developing a training manual for international doctors that covers the socio-cultural practices of the area before they commence medical practice. However, doctors are aware of non-verbal behaviours such as touch and personal space to diverge themselves from patients in order to avoid misinterpretations, which can result in misunderstanding the purpose of the medical examination. In terms of CAT, one motive for divergence is that individuals' communicative behaviour in the interaction is oriented away from interlocutors (Giles & Smith, 1979).

Ahmed and Bates (2016) in their study which examined how patients' perceptions of doctors' accommodative behaviours impact their satisfaction during the direct medical encounter, suggested that patient satisfaction is subject to doctors' perception of the use of CAT strategies of convergence and divergence. As a result, patients were more satisfied when doctors were perceived to diverge moderately in their use of enacted interpersonal control which is most likely to be accepted as a strategy to make an appropriate complementary relationship between them. Their findings have implications on how doctors should communicate with patients and be moderate in the use of convergent and divergent communication accommodation strategies.

2.5 Summary

In summary, the review of the literature shows how health communication can be influenced by certain factors, such as language, culture, low health literacy, gender, and power distance. Therefore, studies show that effective communication between doctors and patients is an important aspect of patient care and crucial to promote an effective and therapeutic patient-doctor relationship (Improta, 2011; Kalbfleisch, 2009; Kee et al., 2018; Pagano, 2018; Pechak et al., 2019).

Both theories, IST and CAT offer the best opportunity for understanding the D-P relationship and the barriers that hinder their communication. This relationship is enhanced with verbal

behaviour including avoidance of English medical vocabulary, support, longer consultation duration, passive, dominant doctor behaviour, displaying humour and interest. Non-verbal behaviours were shown to improve D-P relationship resulting in positive outcomes such as smiling, direct body orientation, proximity/touch, head nodding, leaning forward, uncrossing legs and arms and maintaining eye contact. Several studies (Collins et al., 2011; McCabe & Healey, 2018; Pagano, 2018; Pechak et al., 2019) have reported that effective D-P relationship can result in higher patient satisfaction, improvement in health outcomes and overall quality health care.

Sometimes patients do not comply with doctor's medical advice due to his/her perceptions, religious beliefs and cultural practices (Galanti, 2014) regarding available alternatives to the doctor's treatment recommendations (Villagran et al., 2012). Therefore, an awareness of common barriers to successful D-P communication and a need to address communication effectiveness relative to cultural practices and health beliefs will enable professionals to eradicate these barriers and better identify patients' health needs, perceptions and expectations.

Chapter Three: Methodology

3.1 Introduction

This chapter presents the methodological approach, and the methods of data collection and analysis used in this qualitative study. It consists of five main sections, including an outline of the qualitative research method used for data collection, the participants involved, the instrumentation used, analysis procedures, ethical considerations and reflexivity. The chapter summary highlights the major points of the methodology.

3.2 Qualitative research method

The three important components of a qualitative research process generally include epistemology, a theoretical perspective and methodology (Crotty, 1998). This chapter describes the research process in detail, from entering the clinical setting and data collection using qualitative methods to data reduction using a thematic analysis approach that examines the effectiveness of health communication. I was responsible for primary data collection. It is often perceived that the idea of 'researcher as instrument' is a risk to qualitative data interpretation and findings. In contrast to the quantitative approach, qualitative data relates to the researcher as human research instrument rather than static data (Marriam (2002) as cited in Nelson, 2015). A detailed look into how non-verbal communication can augment or be misaligned with the verbal message in medical consultation can be useful. Hence, my positionality and natural observation of the participants allowed me to gain an opportunity to process data immediately and to explore hidden interesting patterns in this approach. However, I quickly recognized that I needed to build rapport with participants in order to create a comfortable space for disclosure. First, I shared my identity as a researcher and, second, my beliefs, values and membership of Jordanian communities in order to build a strong connection with participants so they could open up about difficult experiences they had had previously when communicating their health. Therefore, I had to talk about my research and interest in

engaging with participants prior to entering the field. This research used a qualitative method to investigate communication barriers between doctors and patients. As the methodology for this thesis is concerned with the nature of the phenomenon discovered (Flick, 2014; Schillinger et al., 2002), a qualitative approach was chosen to observe and gather data in natural settings.

3.3 Data collection

The use of a qualitative approach in this study is for greater interpretation of data and a better understanding of "embedded processes" in people's everyday lives (Rosaline, 2008, p. 13). Qualitative methods are useful in the current inquiry to provide the opportunity to explore what types of communication issues occur between doctors and patients in Jordan and what causes them. This approach offered me the opportunity to elicit the qualitative nature of the research, particularly, the perception and understanding of the participants in the research. The participants could share their lived experiences based on their perceptions and expectations regarding health and the linguistic and sociocultural barriers that cause misunderstanding and confusion during their medical consultation and treatment.

Semi-structured interviews and participant observations offered an insider's perspective on the language and cultural barriers during medical interactions. The interviews encouraged participants to respond through open-ended questions that led to the generation of a wealth of data to be elicited by me during the study. In addition to the interviews, a series of obseravation sessions were conducted so that I could observe the natural interaction between the doctors and patients during the medical treatments (Taiwo, 2013).

The videos ranged between 01:18 and 17:76 minutes. The average length of the videos was 5.83 minutes. The video data yields 104.86 minutes, a total of 18 consultations, which is about 1.748 hours of language data. The interviews ranged between 05:40 and 30:05 minutes in duration. The interview data yielded 379.59 minutes, a total of 6.32 audio recordings. I transcribed all the interviews and translated them into English.

3.3.1 The clinical settings

My research took place at one of the public hospitals in the South of Jordan. Prior to starting participant recruitment, one of the receptionists at the hospital escorted me to the clinical setting. The receptionist also introduced me to the participants who were given in advance an information sheet about the research and who agreed voluntarily to take part in the research. In each clinic the interviews were conducted in a general practice room situated in the emergency department, which included small offices for the GPs and a large ward for physical examination divided into small sections by curtains. Other interviews were conducted in an outpatients' clinic where small offices for the GPs included a couch and small desk with one chair for the patients and the other for a nurse. Upon entering the hospital, the patient would check in with the receptionist. A small waiting room was outside the general practice room where the patients normally wait to be seen by a doctor. Patients have their first consultation with a GP in a small office where doctor and patient sit face to face over a table in a small space. If the patient needs physical examination, he/she is examined in the big emergency room. In the doctors' office, there were paper records to document the patients' visits and their complaints (medical issues) as well as make diagnoses and treatment recommendation.

3.3.2 Participants

This study examined verbal and non-verbal communication between a sample of doctors and patients in medical settings in Jordan. The nature of my research questions required the recruitment of specific respondents – bilingual GPs (speaking Arabic, English and languages other than English) and patients who were from different cultural backgrounds and regions (urban or rural) in Jordan and were bilingual (Arabic and English) and also non-bilingual. In other words, the sampling strategy was based on a purposeful process and is the unit from which all measurements will be based (Groves et al., 2011). Most qualitative researchers use the term *Purposive.* This means that samples are based on the careful judgement (Galvan & Galvan, 2017)of the researcher and suitable participants are considered to be individuals who

have had experiences and information that is useful for the researcher (Holloway & Gavin, 2016). Therefore, participants who were involved in this project could provide specific information regarding my research questions (Hollway & Jefferson, 2000; Lindlof & Taylor, 2011). With this approach, I could examine the factors that hindered verbal and non-verbal doctor-patient (D-P) interaction and sociocultural factors that caused ineffective D-P interaction during the medical consultation. In order to obtain a rich and adequate description of data the sample size used was twenty. Based on my perception during interviews and observations, additional recruitment for participants was unnecessary (Goodwin, 2015).

3.3.2.1 Doctors

Doctors who work and are specialised in general internal medicine at a public hospital in Jordan from both genders were invited to participate in this project (see Table 3.1). They were recruited by an email sent to the clinic receptionist and a carbon copy was sent to them to take part in the research. The study was looking for GP doctors, females or males who were working in general internal medicine. The basic inclusion criteria for their participation was specified in the flyers (see Appendix A). The doctors' level of expertise was based on a specific number of years of practice, e.g., less than 5 years, 5-10 years, 10-15 years, etc (Breckwoldt et al., 2012).

All doctors were observed and videotaped in real medical settings. Additionally, they took part in semi-structured interviews in Arabic, that required no more than 30 minutes of their time, in which they were audio recorded.

Table 3. 1

Basic Demographics of the Doctors

No.	Pseudonym	Gender	Education	Work experience
1	Dr Amjad	male	English	Over 10 years
2	Dr Shadi	male	English	Over 10 years
3	Dr Adel	male	Non-English	5-10 years
4	Dr Ali	male	Non-English	less than 5 years
5	Dr Hassan	male	English	less than 5 years
6	Dr Nabeel	male	Non-English	less than 5 years
7	Dr Sabri	male	English	less than 5 years
8	Dr Salem	male	English	less than 5 years
9	Dr Asma	female	English	less than 5 years

3.3.2.2 Patients

Patients who visited their GP doctors for the first time and were above eighteen years of age were invited to participate in the study through interviews and observations. Patients returning for minor, routine, non-sensitive illnesses or injuries were invited to participate in the research through leaflets which were handed to them by the receptionist. The information provided by the receptionist to the patients included my contact details for further information on the research. Patients who agreed to participate in the observation/interview, did so during their next doctor's appointment. The patients were given sufficient time to decide about their participation. The study was looking for adults above 18 years, female or male and Jordanians who scheduled their first consultation with a GP. The basic inclusion criteria for their participation was very clear in the flyer (see Appendix B).

All D-P interactions were observed and video-recorded in real medical settings. Additionally, they completed a semi-structured interview in Arabic, that required no more than 30 minutes of their time, which was audio-recorded. Patients were informed that their participation was voluntary, and that they would be given a gift voucher to the amount of 20 $AU. However, all

participants, except two, refused the gift voucher for their participation as such compensation is uncommon in Jordanian culture.

The initial plan was to interview 20 patients (10 females, 10 males). However, the total number of interviewed patients was in fact 18 patients (12 males, 6 females) (see Table 3.2).

Table 3. 2

Basic Demographics and Characteristics of Patients

No.	Pseudonym	Age	Gender	Education	Language acquisition/ Arabic- English
1	Fadi	46	male	Higher-education	Bilingual
2	Jasser	24	male	Higher-education	Bilingual
3	Murad	46	male	Higher-education	Bilingual
4	Muneer	41	male	Higher-education	Bilingual
5	Sameh	37	male	Higher-education	Bilingual
6	Ameer	32	male	Diploma	Monolingual
7	Ahmed	24	male	Secondary	Monolingual
8	Qais	32	male	Secondary	Monolingual
9	Sameeh	51	male	Secondary	Monolingual
10	Tamer	34	male	Secondary	Monolingual
11	Mamoun	65	male	Elementary	Monolingual
12	Sami	78	male	Elementary	Monolingual
13	Areen	40	female	Diploma	Monolingual
14	Ayat	35	female	Secondary	Monolingual
15	Rana	27	female	Secondary	Monolingual
16	Haleema	40	female	Elementary	Monolingual
17	Muna	42	female	Elementary	Monolingual
18	Shayma'a	55	female	Non-educated	Monolingual

3.3.3 Interviews

Interviews with the doctors were designed to address the research questions in this study because they allowed them the opportunity to tell their experiences and reflect on how they accommodate their speech to adapt to different situations they faced when communicating in medical situations (Dorgan et al., 2009; Jain & Krieger, 2011).

For the purpose of the qualitative method, a *semi-structured interview* was conducted utilising tape recordings. It has been claimed that semi-structured interviews first give participants the freedom to express thoughts and feelings in the privacy of a one on one encounter, (Croucher & Cronn-Mills, 2014) and second enable researchers to ask follow-up questions.

Completing each semi-structured interview took between 15 and 30 minutes. For the purpose of accuracy and validity, I did initial checking (Yin, 2015) of data gained from each interview. Interviews were recorded with the consent of the study participants. Interview questions were formulated in an open-ended form (Yin, 2015) to allow participants to offer additional information as well asto provide scope for more elaboration and in-depth exploration of salient themes in the conversation. All interview recordings were transcribed verbatim to keep an accurate record of participants' views.

3.3.4 Participant observation

As part of my data gathering approach, I engaged in participant observation for doctors and patients at the hospital in the internal medicine clinics. Using the method of observation with the participants enabled me to widen the focus of the observed situations compared with only audio or video recordings of consultations (Hahlweg et al., 2017).

All verbal and non-verbal communication issues during the interactions were observed among doctors and patients within internal medicine clinics. I used a video recorder for capturing verbal and non-verbal aspects of the dialogue between doctors and patients. The videotaping was done by a camera set up on a table in each examination room. The video camera was mounted on a tripod in advance and it was easy to operate once the consultation session started. In addition, during the observation I used detailed study of video data of the participants using a coding chart (See Appendix J) which specifically kept track of any non-verbal behaviours which occurred - such as smiling.

The goal of the direct observations was to witness the D-P interaction in practice to develop an understanding of the barriers involved and how they impact the D-P interaction. The reason behind my presence during the medical consultation was to collect intricate details of verbal and non-verbal interaction between the doctor and the patient. To assess communication, it was necessary to directly observe the interaction taking place between the doctor and the patient. However, I was conscious of the potential effect that the observation would have on patients' behaviour during the consultation (Erford, 2014). My presence was unavoidable in this research. Participants gave informed consent for the D-P consultation to be recorded.

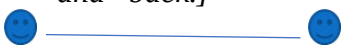
3.4 Data analysis

As mentioned above, the data was collected in a public hospital in the South of Jordan through conducting observations and interviews of the participants. All the interviews and audio recordings were transcribed and translated from Arabic to English. The interview data gathered was examined for factors including verbal, non-verbal and socio-cultural interaction in D-P communication. These transcripts were translated and imported into the analytical software, Nvivo 12, for coding. I reviewed a sample of transcribed data independently with two of my bilingual colleagues to make sure that the transcriptions and translations were accurate. A sample of the translations was also checked by the regular supervisory panel. These translations were written conceptually, not to the literal meaning of the words (e.g., cultural specific concepts), in order to ensure the target language data reflect the source language meaning and bring an acceptable language for the audience. A literally translated equivalent concepts will not convey the meaning of the original text, leading to a highly probable misunderstanding and miscommunication.

In the case of the video-recordings, all the videos were seen several times before starting the transcription. The non-verbal cues were annotated using ELAN from beginning to the end for

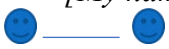
each participant in the video-recording. For example, the kinesic cue "doctor smiles" was coded by annotating the doctor's smile and coding when the smile begins and ends temporally as illustrated in this Fragment 5.17 (See Chapter five):

1 Ms Shayma'a: بشكي من مرض السكري و مرض الضغط و رجلي و ظهري
[I'm complaining from diabetes, blood pressure and pain in my legs and back.]

2a Dr Asma: 

2 Dr Asma: أول شيء عرفينا على حالك؟
[First of all, could you introduce yourself?]

3 Ms Shayma'a: إسمي شيماء
[My name is Shayma'a.]

4a Dr Asma: 

4 Dr Asma: أهلا و سهلا
[You welcome!]

Firstly, a lot of these methods focused on IST Theory (Gumperz, 2005; Gumperz & Cook-Gumperz, 2012; Tannen, 2005) and CAT theory (Giles, 1975, 2016; Giles & Ogay, 2007; Giles & Smith, 1979). The purpose of this study is to expand qualitative studies related to IST theory and CAT theory. Secondly, it provides greater interpretation of data. For example, Silverman (2013) argued that qualitative analysis is less formulaic; often requiring the use of a computer to give quick feedback on the results of emergent questions involving an interactive cycle of thinking and innovation. Computer programs for qualitative data analysis are designed to make it easier for researchers to generate a listing of codes, peruse thousands of records and extract just what is needed for analysis which can speed up the overall analysis process, and test different hypotheses about relationships.

Researchers can observe participants' actions (e.g., spoken words, facial expressions, kinesic cues, the timing of actions and their positioning to the interaction) (Garcia, 2013).

Participants were asked open-ended questions in the interview; this provided a wide variety of responses and rich descriptions of their experiences. By responding to questions in the interview in their own words, respondents were able to convey their own experiences.

Furthermore, this method allowed the patients to disclose vital and often "hidden facets of human and organisational behaviour" (Qu & Dumay, 2011, p. 246) and brought out delightful themes during coding and thematic analysis in the collected data (Gray, 2014). Hence, based on the work of Braun and Clarke (2006) the respondents' responses to the open-ended questions were analysed using thematic analysis.

Each interview was transcribed. The names of doctors and patients were omitted from transcripts; instead, pseudonyms were used.

3.4.1 Thematic analysis

Data was analysed to identify the barriers that impacted D-P relationship in a Jordanian healthcare setting. Thematic analysis is a qualitative method used to analyse data collected from interviews (Guest et al., 2012; Owen, 1984). Daly et al. (1997) have termed thematic analysis as a search for themes that arise as being significant to the explanation of the phenomenon, whilst (Guest et al., 2012) thematic analysis is defined as "the most useful [method] in capturing the complexities of meaning within a textual data set" (p.11). It is a form of pattern realisation within the data, where emerging themes become the categories for analysis. Based on interview questions, interview content and observation, a coding scheme was developed which followed the outline by Braun and Clarke (2006) by implementing the six stages of audio data coding (See 3.4.5 to 3.4.10). Themes were identified then grouped, moving from specific themes to more theoretical ones. In regards to the coding scheme of video data I focused only on the critical movements of the participants' interactions; for example, non-verbal cues such as eye-contact, head nods, etc. These cues were analysed in ELAN (see the Coding Procedures 3.4.3.2 to 3.4.3.5).

I selected thematic analysis to analyse responses to the open-ended questions and observation data in the current study for different reasons: (1) to gain deep insight into the understanding

of verbal and non-verbal communication during the medical session, (2) to explore the key themes that emerged from participants perspectives, (3) to observe the gender differences in D-P interactions based on their life experiences.

3.4.2 Research tools

Mertens and Wilson (2012) claim that the researcher needs to decide whether he/she will use a software for the analysis of data or will do it manually. They add that there are some factors that may influence this choice:

1. The amount of time which is available for data analysis.
2. The amount of time needed to learn to use a method.
3. How much data is being collected and analysed?
4. The availability of training and support from the researcher's institution.
5. The technological equipment or software which may be available to the researcher in his/her institution.
6. Budget for equipment; accessing and using appropriate software and training (Adapted from Mertens and Wilsons (2012).

The analysis of audio recordings was done with NVivo software 12, and the analysis of video recordings was done in ELAN.

I used ELAN for the purpose of displaying nonverbal cues and performing analysis of theses cues during speech in this study including gestures and their functions and the overlap between and synchronization of different behavior patterns. It was also used to identify moment-to-moment participants interactions by generating a file that has a start and end time for a particular event tier. For example, to identify the extent in which doctors' levels of dominance impact their interaction with patients, I analysed the video recordings of the participants' paralinguistic cues. I investigated how variability in pitch, or "intonation" in doctors' voice might convey

dominance using ELAN. ELAN allowed me to analyse the waveforms and pitch of each line of a doctor's speech (ELAN, 2017).

NVivo software 12 was used for coding and data connection. It allowed me to watch (or listen to) the recording alongside the transcribed file, add in timestamps and cut short sections, as well as helped me to reshape and reorganize coding, interrogate the data, and have rigor in dealing with a large amount of data (Wiggins, 2016). It also helped me to organize my data first into free nodes (i.e., independent categories) and later into tree nodes (e.g., confirmed categories/themes with assigned properties). Throughout this process, the developing categories and themes were verified, refined, and elaborated (Gorawara-Bhat et al., 2017).

3.4.3 Using ELAN to annotate non-verbal cues

When gathering data from video recording observations, ELAN (Eudico Linguistic ANnotator) was used for analysis. ELAN is a linguistic tool (Mertens & Wilson, 2012) used for the making of text annotations for audio and video records and is accessible for several operating systems: Linux, Windows, and MacOS X (Brugman et al., 2004; Crasborn et al., 2006). In the data analysis, the researcher could identify the length of eye contact or eye kinesic cue (Yang, 2010).

3.4.3.1 Coding of Non-verbal Communication Procedures with ELAN

For the purpose of analysing non-verbal behaviours of participants in their interaction, I have used the notational symbols (See the Appendix I) that were available in the Microsoft Word Document and some notational symbols were used by Yang (2010), Onwuegbuzie et al. (2010) and Hepburn and Bolden (2017). In this study, however, only relevant non-verbal behaviours to the themes are transcribed and discussed.

Annotation was done in two stages: the first stage was done by me using the Behaviour Observation Chart (See Appendix J) which provided a brief description recorded at the time of

observation, and a second stage was performed separately in ELAN. The formal coding scheme using annotations was developed in ELAN.

3.4.3.2 Kinesic cue annotation

Patients raising concerns about pain sought advice from their doctors in order to reach a diagnosis and find treatment. This study focused on moments of hand kinesic cues to identify the location of the pain and to describe symptoms during medical visits. In the transcription of hand kinesic cues, an important challenge to kinesic cue annotation was to find out the notational symbol "that captures dimensions relevant to the target of the particular analysis" (McNeill, 2005). The coding schemes of hand kinesic cues was mainly to describe whether the hand kinesic cue was deictic/pointing (pointing to an entity or object), metaphoric (putting an abstract idea into a more literal, concrete form), iconic (mimicking what is conveyed verbally and making them more concrete and vivid) or beat (moving head, fingers, hands, or arms in/out or up/down, short and quick) (Norris, 2004). Examples of complete annotations are shown in Figure 3.1 and 3.2 as follows:

Figure 3.1

Coding Of Hand Kinesic Cue In Elan

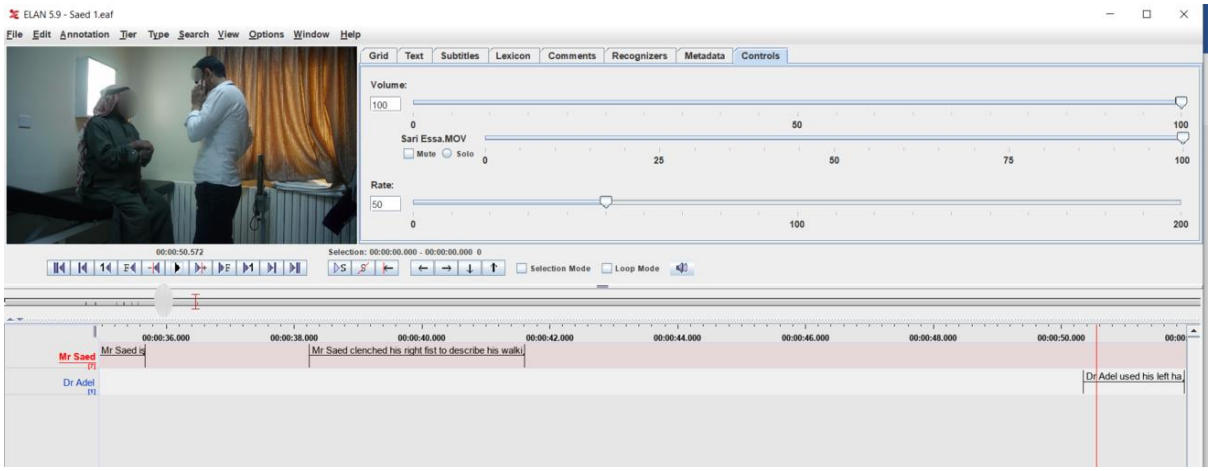
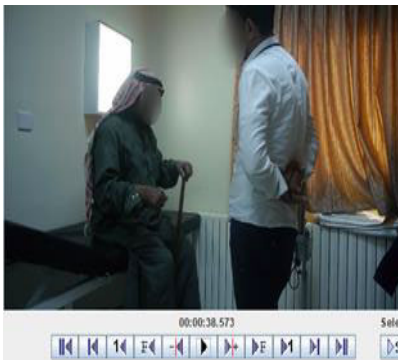


Figure 3.2

Transcript: Screenshots Of Hand Kinesic Cues From ELAN

This female patient used a deictic kinesic cue.



This male patient used an iconic kinesic cue.

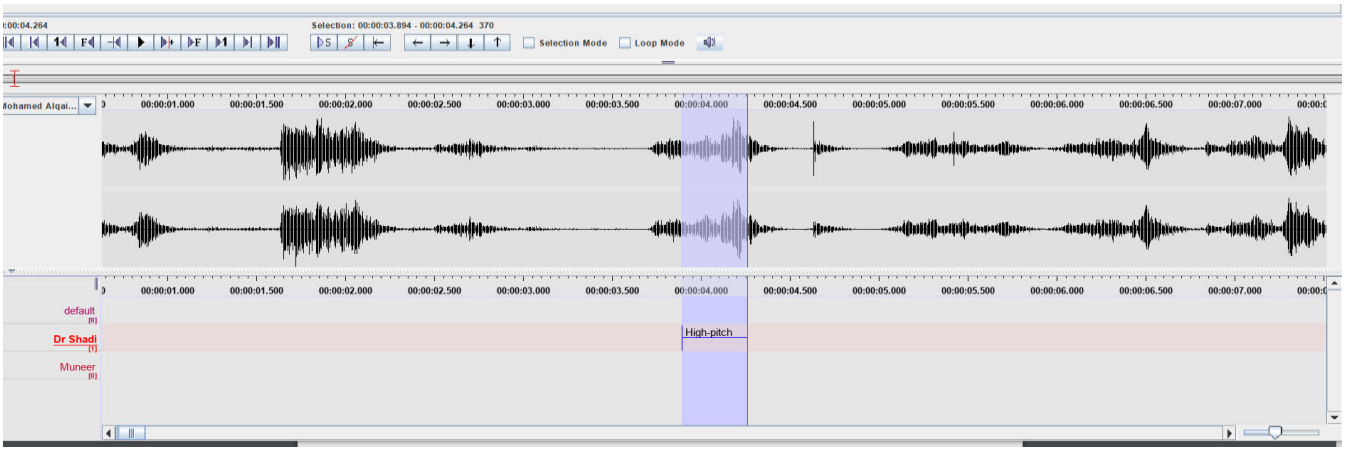
This female patient used metaphoric kinesic cue.

3.4.3.3 Annotation of paralinguistic cues

To identify the extent in which doctors' levels of dominance impact their interaction with patients, I analysed the video recordings of the participants' paralinguistic cues. I investigated how variability in pitch, or "intonation" in doctors' voice might convey dominance using ELAN. ELAN allowed me to analyse the waveforms and pitch of each line of a doctor's speech (ELAN, 2017). The rise and fall in volume and pitch are shown in Figure 3.3 and in fragment 5.12 (see Chapter five) as follows:

Figure 3.3

Transcript: Pitch Level From ELAN



1a Dr Nabeel: ☾x _____☾x

1 Dr Nabeel: ممتازة حرارتك! {Looking at the medical thermometer}
[Your temperature is good.]

2 Ms Areen: بس دكتور بالنسبة للعلاجات، أنا ما بحب أوخذ علاجات
[Doctor! I do not like to take drugs]

3a Dr Nabeel: ! ! ___! !

3 Dr Nabeel: .. مشان
[For ..]

4 Ms Areen: …بس بوخذ بين فترة و فترة إبرة للتحسس و قطرة عينية يعني
[I take an injection for Bronchitis and eye drops from time to time. So...]

5a Dr Nabeel: ! ! ___ ! !

5 Dr Nabeel: .. ممتاز! بس مارح يساعدوك بشكل نهائي. في عنا مضادات للتحسس بتساعدك
[Perfect! But they would not help you permanently. I suggest to take antibiotics for the allergy]

Specifically in this fragment above, the symbol '! !' was used to indicate that the speaker is interrupting (see Appendix I).

3.4.3.4 Facial expressions annotation

Facial expressions include smiling, laughter and other combinations of facial movements that make up expressions of disgust, fear, joy, surprise and sadness; this can be interpreted in different ways depending on human cultural and social backgrounds. Smiling as a kinesic cue was coded to describe a happy or friendly facial expression. The smile category was defined as smile occurrences by the doctor's raising of the lip corners (smile) and lifting of the upper lip (Grammer et al., 1988). ELAN was used to annotate instances of smiling as a kinesic cue. Specifically, a symbol '☺' was used to indicate smiling (see Appendix I) as transcribed in data fragments 5.17 to 5.20.

3.4.3.5 Head movement annotation

Head nodding was coded in ELAN to describe patients' head movement as a sign of acknowledgement and agreement to the doctors' medical advice. Based on previous research, a 'head nod' was defined as repetitive, involuntary drops of the head on to the chest in

previously normal persons (WHO, 2012). In this study, ‘Head nod’ occurrences were defined as the degree in which the patient exhibited up down motion by the position of the patient’s chin in relation to his shoulder, while looking at the doctor(s). ELAN identified all head movements falling within this range as nods. The symbol used to indicate a head nod is ‘/ \’ as illustrated in this fragment (5.25) (see Chapter five):

30a Dr Shadi: ☺→ ☺→
31a Mr Muneer: / \ / \
30 Dr Shadi: أنصحك تترك التدخين لأنه هذي بداية حساسية و ممكن يصير معك ربو أو أزمة
[I advise to quit smoking because this is the start of new allergic rhinitis, and there is a possibility of asthma]
32a Dr Shadi: @ @
32b Dr Shadi: ☺→ ☺→
32 Dr Shadi: هذي الأسماء اللي بتخافو منها
[These scary illnesses you afraid of them]
33a Mr Muneer: / \ / \
34 Dr Shadi: الدخان، البخور، العطور الشديدة، وشجر الزيتون
[You should stop these elements including smoking, incense, intense perfumes, and olive trees.]

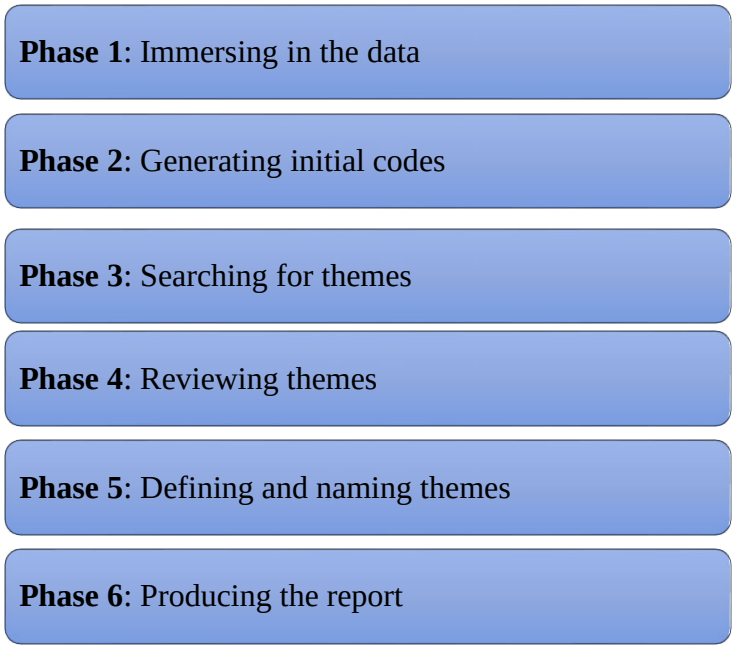
In the sample annotation above, coding was done when the smile begins and ends temporally. I viewed the video recordings again and again to make sure all annotations align with the verbal message.

3.4.4 Using NVivo 12 to Code Verbal Communication

Data obtained from audio recording interviews were analysed using NVivo12. NVivo 12 is intended to facilitate a style of qualitative thinking of researchers in connecting data and categories in three ways: visual coding, attributes and node coding (Richards, 1999) with substantial flexibility in coding (Basit, 2003; Mertens & Wilson, 2012). Braun and Clarke (2006) provide an outline to guide researchers through the six phases of thematic analysis. The six stages of audio data coding are presented in Figure 3.4. The choice of electronic coding has a vital role in the analyses of data to organise and to support the findings in analysing and explaining the phenomena (Basit, 2003).

Figure 3.4

Six Stages Of Audio Data Coding (Adapted From Braun & Clarke, 2006)



3.4.5 Immersing in data

As Braun and Clarke (2006) indicate, the researcher should immerse himself/ herself in the data to the extent that they are familiar with the depth and breadth of the content. This involvement in data requires a careful repeated reading of all the Arabic transcripts their English translations. For coding during this phase, the researcher should take notes or set ideas needed later in subsequent phases. Once getting fully familiar with this, the researcher is ready to start generating the initial codes (Braun & Clarke, 2006). For example, when I finished transcribing data, I read and re-read and noted the initial data ideas.

3.4.6 Generating initial codes

This phase includes the creation of initial codes inductively from the raw data or deductively from theory and prior research (Boyatzis, 1998). Inductively, the researcher may identify the themes clearly from the data themselves without accommodating to a pre-existing coding frame or the researcher's analytic preconceptions. To this point, the thematic analysis is driven by data (Braun & Clarke, 2006). Deductively, on the other hand, the researcher is driven by the

theoretical or analytic approach which may produce a less rich explanation of the overall data (Braun & Clarke, 2006).

In the present study, the codes assigned to the data were determined by: the participants' experience in regard to verbal and non-verbal interaction (e.g. *those whose level of education is low, were found not committed to the medicine and did't follow the therapeutic plan*) and the impact of the bilingual and educational background of doctors on interaction with their patients (e.g. "*I tried to explain to him in a very simple way and I felt that I didn't pass the information well"*). Therefore, cultural issues significantly impact D-P interaction.

3.4.7 Searching for themes

In this phase, based on the similarity between the list of different codes that were generated from the data, these codes were categorized into fourteen main themes as follows:

- Lack of a 'common' language
- Lack of understanding
- Language and health literacy
- Doctors' health communication training
- Challenges in diagnosing
- Challenges in acquiring the history
- Challenges in explaining side effects
- The impact of gender on D-P interaction
- The impact of patient's education in D-P interaction
- Patients' perceptions on communication with doctors
- Traditional medicine
- The culture impact on communication & health, and

- Reasons that hinder patients from seeing doctors
- Limitations in treatment of patients

I created tables to visualise the connections between the listed themes and potential sub-themes. These tables served as a visual image and were established by writing the name of the first initial theme as the main heading, followed by the subthemes that were related to it (see Appendix C).

3.4.8 Reviewing themes

This phase started once a set of themes had been created and needed to be refined, combined, isolated or even rejected (Braun & Clarke, 2006). During this phase, the coded data extracts for each theme were reviewed to make sure that each had a coherent relation to the data set and to determine if a coherent pattern was apparent (Braun & Clarke, 2006). Thus, all the participants' extracts which represented each theme were read and revised. Those of a set of themes (i.e., "Language and health literacy") were needed to be defined and refined ("Low health literacy of patients") as shown in the following stage of coding analysis.

3.4.9 Defining and naming themes

As was performed in the preceding data analysis phases, fourteen main themes resulted in examining communication issues that impact D-P interaction (see Appendix C). Next, the main features of each theme were identified. This helped to clarify the essence and scope of each theme and explore any key related sub-themes. Each theme was described by giving it an appropriate name that captured its essential meaning. Some of main themes have sub-themes as shown below in Table (3.3). Then quotations from interview transcripts, which best exemplify the themes, were identified. In defining the themes, the final fourteen themes defined below (Table 3.3) reflect the final revisions made to the themes.

Table 3. 3

Final Themes From Coding

Themes	Sub-themes
1. Lack of a 'common' language (ch.4)	1. Perspective of doctors 2. Perspective of patients
2. Lack of understanding (ch.4)	
3. Low health literacy of patients (ch.4)	1. Patient's story-based narrative
4. Challenges in diagnosing with opposite-sex (ch.4)	
5. Doctors' health communication training (ch.4)	
6. The impact of gender on D-P interaction (ch.6)	1. Perspective of patients 2. Perspective of doctors
7. The impact of patient's level of education on D-P interaction (ch.6)	1. Perspective of doctors 2. Perspective of patients
8. Factors hinder patients from seeing doctors (ch.6)	1. The unavailability of medicine 2. Patients' carelessness of medical advice 3. Word of mouth 4. Resources and health services of the hospital
9. Recourses and health services of the hospital	1. Perspective of patients
10. Limitations in the treatment of patients (ch.6)	1. Patients' experiences and expectations
11. Patients' perceptions of communication with doctors (ch.6)	1. Patients' satisfaction 2. Patients' dissatisfaction
12. Traditional medicine (ch.6)	1. Patients' perception of traditional medicine 2. Traditional medication as a barrier
13. The impact of culture on communication & seeking health (ch.6)	1. Taboo topics 2. Presence of a third party
14. Limitations in treatment of patients	1. Patient treatment preferences

3.4.10 Producing the report

This stage was the last step in my data analysis. Braun and Clarke (2006) emphasize that the report needs to include vivid examples with sufficient evidence of each theme from the data collected. Here, I contend that several factors affected D-P communication and these factors were elaborated in three chapters (4,5 & 6). These illustrate the fragments that embedded within the analytical data in scenarios between doctors and patients during medical consultations in Jordan.

3.5 Ethical considerations

Ethical approval for this research was obtained from Western Sydney University Ethics Committee (see Appendix D) and informed consent from the institutional site as required prior to data collection. The observations and interviews were conducted with a Participant Information Sheet (see Appendices E & F) and a Consent Form to maintain participant confidentiality (see Appendices G & H). Those who agreed to participate in the data collection phase were provided by me with information sheets detailing the aim of the research, research process, use of collected data and my details. A health researcher should not leave a patient in a nervous or bothered state. If she/he finds the patient is suffering, a procedure is required for follow-up (Holloway & Wheeler, 2013).

I introduced myself and provided general details about my study before gathering information from the participants. They were informed that their participation was voluntary. They were reassured that the information they supplied would be kept confidential. Additionally, their names were omitted from the responses to ensure confidentially. Pseudonyms were used for the purpose of confidentiality.

3.5.1 Informed consent

Informed consent was obtained from all participants prior the start of the research (see Appendices G & H). Observations of the participants during data collection raised the greatest ethical consideration due to obtaining informed consent from all participants. Informed consent was provided with verbal explanations of the study to all participants. The participants were given the opportunity to ask questions about the research and were made aware that they could withdraw from this research at any time without negative consequences. Written consent was obtained from the participants prior to the start of data collection.

3.5.2 Confidentiality

Confidentiality and anonymity were maintained through the use of pseudonyms in the research reporting and by changing any details that may reveal the identity of the patients. Confidentiality of the audio and video recordings have been safeguarded. Data was stored and managed in the WSU researcher dashboard; it being a secure and locked area. No one other than me and my two supervisors have access to the data. All data collected was stored in Cloudstor, a safe cloud storage and file sharing service that all research candidates at Western Sydney University have free access to. CloudStor is an officially support and recommended platform for researchers at Western Sydney University and is preferred over third-party providers such as Dropbox.

3.5.3 Risk or discomfort to the participants

I informed participants right from the beginning that their information would be used for research purposes only and that no one would disclose it without their consent. In regards to the interviews, disclosure of participants' identities could be a risk for some participants. For this reason, some participants did not agree to be interviewed; interviews were conducted only with those who expressed their consent. At the beginning of the interview, there were some

demographic questions (name, gender, age, and educational level). One of the questions was about their willingness to be interviewed by me. In addition, it was explained to the participants that the interview would be audio recorded only so that their identities could be protected and also to ensure that they feel comfortable when talking.

Regarding the disclosure of sensitive personal information, I gave the patients the chance to stop filming at any time by raising their hand to signal me to stop filming. In order to ensure that patients feel comfortable during the interview, I specifically asked each patient whether she/he had a preferred location in mind where the interview could be conducted.

3.6 Reflexivity

Reflexivity allows qualitative researchers to explicitly display their embodied individuality and its effects on the research process and highlight their interests, attitudes and their motivations in choosing their research topic, interview questions and interviewees (Finlay & Gough, 2003). By being reflexive, I was able to observe the poor communication between doctors and patients in the clinical settings in Jordan; this became the essence of my research. My mother - unfortunately passed away of kidney failure in 2017- was treated with kidney dialysis and I had to stay with her more than one month at the hospital which enabled me to observe the interaction between her and her doctors. There were a lot of miscommunications due to language barriers, use of English medical jargon, use of English between doctors in front of her, ultimately leading to misdiagnosis, mistreatment, and overall dissatisfaction. This motivated me to study this field in order to examine the barriers that influence D-P communication in Jordan. In addition, I consciously used my individual personal experiences as an educator and a linguist working in different educational settings in different countries to inform my interpretations. I constantly reminded myself that I am part of the Jordanian culture

and my experiences became a tool that I used to improve my research skills which helped me to better understand my participants' lived experiences.

As my research field is located within constructionism, I endeavoured to engage with my participants in order to know what was going on with them during medical consultations, and moreover, to find out the reality behind their actions. Engaging in reflexivity during a qualitative research process has been explained by Crotty (1998) who stated that 'meanings are constructed by human beings' (p. 43), therefore, their experiences are socially constructed. As I engaged in reflexivity, I ensured that participants' experiences were transcribed and analysed accurately in order to reveal their real stories and interpretations through careful distinguishing of the concepts and categories.

3.7 Summary

This chapter discussed the methodological approach and research design of the study; furthermore, it discussed the ethical considerations. It focused on qualitative research methods including inclusion/exclusion criteria for the participants employed in the study, the research tools in the collection of data and data analysis. The use of thematic analysis and its relevance in the study was also discussed. The analysis of the data collected is discussed in the next three chapters.

Chapter Four: Doctor-patient verbal interaction

4.1 Introduction

This chapter aims to examine the factors that hinder Jordanian doctor-patient verbal interaction. It focuses on the transcribed verbal dialogue obtained from the doctor-patient interactions specifically the medical consultation and interviews data relating to the factors that hinder D-P verbal communication.

Jordanian D-P interaction is different from that of another cultural context. First, Jordanian doctors are educated exclusively in English as English is the main the language of instruction in medical schools in Jordan (Hamdan & Hatab, 2009), regardless of the fact that Arabic is the official language in Jordan (Al-Wer, 2005); this can impact their communication with patients. Second, Jordanian thinking - which is part of the Arab world - is fundamentally gendered as it takes the interaction between male and female as a serious and sensitive issue which is affected mainly by traditional Eastern conceptions of the nature of women and men. Finally, Jordanian community stems from Bedouin origins and talking about any a sensitive topic is considered taboo (Al-Shdayfat & Green, 2012), this created a significant impact when diagnosing patients of the opposite-sex.

Based on the first research question ‘What are the factors that hinder Jordanian doctor-patient verbal interaction?’ in this study and the strategies used to avoid the impact of these factors on D-P interaction, five subthemes emerged from the interview transcripts and observations of the D-P consultations the thematic analysis: 4.2) Lack of ‘common’ language, 4.3) Lack of understanding 4.4) Low health literacy of patients, 4.5) Code-switching motivations, 4.6) Challenges in diagnosing with opposite-sex, 4.7) Doctors’ health communication training.

The main factors that appeared to impact the patient understanding and health outcomes were revealed by both doctors and patients. This chapter of the study provides some insights on how a lack of 'common' language and lack of understanding make it difficult for many doctors when they communicate with their patients. Health literacy negatively impacts patients' understanding because of the low level of patients' education, or because of limited health information knowledge needed to make appropriate health decisions (Taiwo, 2013). Code-switching is a strategy used by bilinguals to signal several functions. The study found that Jordanian doctors usually code-switch to facilitate interaction with patients for linguistic and social reasons. Although all of the patients preferred conversing in Arabic, there were some instances of code-switching among bilingual doctors inserting English into Jordanian Arabic speech for two main reasons: filling lexical gaps and accommodation. Diagnosing the opposite-sex appeared to be a barrier for effective D-P interaction. Religious and cultural beliefs can potentially affect a patient's preference in being diagnosed and having treatment choices which make it challenging to doctors when diagnosing. Doctor gender appeared to influence patients' adherence to treatments and the need for decision making. A better understanding of the participant's perceptions and their health interaction can uncover barriers to Jordanian healthcare systems, as well as enhance doctor-patient interaction. Finally, professional training for doctors can foster effective D-P communication and enable successful diagnosis and treatment. This study revealed that the majority of doctors did not receive this particular training during their university coursework.

For all humankinds, verbal communication is a specific capacity to utilise discourse sounds, words, articulations, (and letters in the composed talk), etc., i.e., in the indigenous language. Verbal communication basically relies on the use of speech and in hearing organs that individuals are equipped with which are responsible for the production and perception of verbal language (Belaskri, 2012). Verbal behaviours are associated with either positive or negative

health outcomes, depending on the details of the verbal behaviours (Domingo, 2010), and there is evidence that socio-cultural factors such as gender, patients' education, patients' cultural beliefs also have an impact on D-P verbal interaction.

4.2 Lack of 'common' language

As a subtheme, lack of 'common' language is a major source of misunderstanding between doctors and patients from the perspective of both doctors and patients.

4.2.1 Perspective of doctors

All doctors viewed it their personal responsibility and a natural part of their work to be able to communicate effectively with their patients (Barrett, 2013). Mainly, doctors appreciate the benefit of communicating with patients in lay terms. Doctors appeared to have the ability of finding appropriate ways to break through communication barriers by changing medical terminology or jargon into lay terms (Barrett, 2013; Holst, 2010). However, for some, there were two obstacles; use of medical English jargon in explaining medication and side effects or diagnosing and communicating problems and the lack of patients' knowledge in providing a full explanation about their illnesses.

Dr Asma summed up the reason behind the use of medical English jargon as an obstacle which requires the doctor to communicate a diagnosis in the simplest language (Pagano, 2018).

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
4.1	Interview	Dr Asma	F	27	English	Muslim

" صح أنه في مصطلحات إنجليزية حتى رديف إلها بالعربي راح يكون أصعب منه بالإنجليزي الصراحة، بس ايش، بس إحنا فكرة المرض توصل للمريض، يعني هسا لما تحكي للمريض أنت عندك التهاب الوتر الأخمصي حتى بالعربي مش راح يفهمها. فنشرح إلهم عن طبيعة المرض، يعني شو هو هذا المرض, ايش الأشياء اللي قاعدة تصير معاه, وايش الأشياء اللي راح نعملها، فالترجمة للعربي مش دائماً إنها تكون لصالح المريض."

[Some English terms do not have synonyms in the Arabic language. We are trying to explain the nature of the disease to the patient. For example, when you tell the patient that he/she has a "plantar nerve "in Arabic, he will not understand. Therefore, we explain the nature of the

disease, what it is, what is happening to him and what he should do. Translation into Arabic is not always preferable. Some terms are not understandable even in Arabic.]

Although Dr Asma struggles with explaining illness diagnosis in lay terms (Barrett, 2013), it is clear that she has good sense when dealing with the medical terminology appropriately by using shortcuts that are common to patients which can be understood to meet patients' comprehension and communication needs (Holst, 2010; Ohana & Mash, 2015).

Similar to other studies, the issue of non-equivalent health vocabulary in one language was a challenge to doctors in a study by Acquah (2011). Dr Amartefio, a male diabetes specialist, based on his experience said (Acquah, 2011, p. 68):

> *[Translating the medical terms even to people who speak English can be tough. With the less educated person, it's really difficult getting them to understand diagnosis, so sometimes I have to use pictures to be able to communicate. And there are instances where I get the feeling I did not communicate well, but that is not my fault because the language is not just coming. As time goes on, I try to build my vocabulary in some of the local languages.]*

Another instance that reflected apparent difficulty with medical terms was in the following example:

Fragment	Date source	Doctor: Asma				Patient: Ms. Haleema			
4.2	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		F	27	Muslim	B.A of Medicine	F	46	Muslim	Primary

1 Dr Asma: خلينا نجيب " الأوتوسكوب " عشان فحص الأذان.

[Let's bring the "Otoscope" for ear examination.]

2 Ms Haleema: شو التلسكوب هذا؟

[What is meant by "Telescope"?]

3 Dr. Asma: الأوتوسكوب! الأوتوسكوب هو منظار للأذن، بنحطه بالأذن و بنشوف اذا في مشكلة في الطبلة او شيء آخر.

[It is an "Otoscope". The Otoscope is a speculum for ear examination. We put it inside the ear to see if there's a problem with the eardrum or something else.]

The doctor used one of the communication strategies with her patient: She brought the "Otoscope" and explained to the patient what is meant by "Otoscope" and what it is used for.

The patient's inability to understand what is meant by "Otoscope" urged her to ask about it. The doctor was an effective communicator and was able to continually pick up on Ms Haleema 's lack of adequate vocabulary and, through reiterating the word "Otoscope" and explaining what it was, she achieved better mutual understanding. In order to fix a hearing problem, Dr Asma put forth additional effort to show her patient the correct word (Koch-Weser et al., 2009) by using the strategy of 'Repair'. The repair can be done by actions that direct the interaction to understanding problem solving, hearing, or speaking (Benjamin & Mazeland, 2013).

Dr Asma, in particular, had difficulty switching between medical English jargon and lack of appropriate vocabulary by the patient. She used the word "Otoscope" when talking to her patient. Both those of register (medical terminology) and those using erroneous vocabulary selection resulting from mishearing concepts, fundamentally caused misinterpretation and ineffective linguistic communication (Barrett, 2013; Links et al., 2019). A phenomenon that has been described as a 'mondegreen' occurred when patients may mishear words based on their personal and preliminary Lexicon (Aronson, 2009 as cited in Berger & Cartmill, 2017). If patients have not tried out the concepts with friends and relatives, this may accurately generate malapropisms (Berger & Cartmill, 2017).

Another instance of malapropisms is in this following example:

Fragment	Date source	Doctor: Hassan				Patient: Ms Ayat			
4.3	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	26	Muslim	B.A of Medicine	F	35	Muslim	Secondary

1 Dr Hassan: فيها ألم كثير؟
[Do you have severe pain?]
2 Ms Ayat: فيها ألم بس في المنطقة هاي.
[Yes, I have pain but just in this area.]
3 Dr Hassan: بتقدري تحددي مكان الألم ؟
[Can you point where you feel pain?]
4 Ms Ayat: [Pointing to the pain]
5 Dr Hassan: ايديك كمان؟
[And your hands?]
6 Ms Ayat: الإيدين بس خذلان فيهم.
[I suffer from tearing my hands down.]
7 Dr Hassan: خدر قصدك؟
[You mean 'numbness'?]
8 Ms Ayat: آه
[Yes]

In the observation above, Dr Hassan asked Ms Ayat if she had a pain in her wrist as result of slipping. She replied that she had a pain only in a particular area 'فيها ألم بس في المنطقة هاي' (line 2) *[Yes, it has a pain but just in this area]*. Dr Hassan continued to identify the location of pain and asked her 'بتقدري تحددي مكان الألم ؟' (line 3) *[Can you point where you feel pain?]*. Then, she pointed to the location of the pain (line 4) (see also Figure 5.24). Dr Hassan asked her if she also suffered from pain in both her hands (line 5). She replied 'الإيدين بس خذلان فيهم' (line 6) *[I suffer from tearing my hands down]*. The patient was unable to express precisely what she suffered from, she substituted the word of a similar sound (Mendez, 2011) 'خذلان' (line 6) *[tearing down]* instead of 'خدر' *[numbness]* incorrectly. The doctor was not hesitant to address the error in her inappropriate word selection (Cambridge, 1999) by correcting the term into 'خدر' *[numbness]*.

In attempting to fix the communication barriers that occurred, the doctor used the strategy of "Repair" in correcting patients without fear of damaging the rapport he has built with her, but it can also increase to improve their communication with doctors which may lead to improved health outcomes through improved quality-of-care in the future (Berger & Cartmill, 2017; Gavrielides, 2017).

Some doctors complain about the lack of patients' knowledge in providing a full explanation about their illnesses, which can create a barrier for doctors as a result of the patients' lack of understanding and lack of experience with medical terms. Dr Shadi states:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
4.4	Interview	Dr Shadi	M	65	English	Muslim

" المشكلة احيانا المريض لا يعبر عما يشكو منه، فمن الممكن ان يلفظ كلمات بالنسبة اله الها معنى وبالنسبة النا الها معنى آخر. الطبيب الذكي يجب ان يفهم هذه المعاني واذا ما فهما ان يسأل المريض عن تعبير آخر او قد يكون فحص المريض اكلنيكيا هو الذي يثبت لأي طبيب الشكوى الحقيقة للمريض."

[The problem is sometimes when the patient does not express his complaint well. It is possible to utter words that are considered meaningful for him and carry another meaning for us. However, the intelligent doctor should understand these words or terms, and if he does not understand them, he should ask the patient to think of another expression, or it might be that the clinical examination will reveal to any doctor the real complaint.]

Dr Shadi states that patients may employ different lexical items than doctors for the same concept (Aarons, 2005; Fage-Butler & Nisbeth Jensen, 2016) based on their LHL which may create misunderstanding. Patients' choice of language depends on the vocabulary that they are familiar with as well as how well they express themselves in their daily spoken language (Acquah, 2011). Therefore, without an adequate level of information about their illness and treatment, patients may have a negative experience (Ball et al., 2015) if they cannot appropriately explain what they suffer from. In the case of doctors, lack of patient information may not facilitate their diagnosis, or the medical advice given to the patients (Aarons, 2005; Barrett, 2013).

Some doctors observed that patients in their mid-40s were particularly affected by language barriers due to their low level of education. This is a good example for a doctor when the patients' level of education (Nguyen, 2016) and lack of cultural self-awareness contributes to a lack of comprehension on the part of the patient. Lu and Wan (2018) have defined cultural self-awareness by the degree of the individuals' awareness of how culture can influence them

which can make an important and positive contribution to cultural identification and can have a positive impact on their well-being.

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
4.5	Interview	Dr Ali	M	28	Ukraine	Muslim

" لما تقول مثلًا عندك (إلتهاب الزائدة الدودية) بقول أنا بعرف الزائدة, شو الدودية هذه؟ ..... في مصطلحات ممكن يفهمها اللي هو المثقف. أما العامي صعب، وأكثر ناس في الأمراض اللي عندنا هنا اللي بعد الأربعين؛ يعني اللي عمره أربعين أو خمسة وأربعين سنة، ما في نسبة ثقافة عنده."

[When you tell the patient that he has "Appendicitis", he would say: "I know the "Appendicitis" but what is meant by "The worm"? ... some medical terms could only be understood by the educated patients and are not understood by the uneducated. Most patients here are over 40 and do not have a high level of literacy.]

Dr. Ali argues that the level of patients education and lack of cultural self-awareness impact patients understanding of medical terms (Farahani et al., 2011) particularly the older patients who are less likely to have knowledge about their illnesses because of a decline in their cognitive abilities (Barnett, 2006; Domingo, 2010; Mutchler et al., 2007; Okrainec et al., 2015; Taiwo, 2013). However, for Mr. Ameer, there was no obstacle in using medical English jargon to address his previous medication to his doctor during the medical consultation as illustrated in the following example:

Fragment	Date source	Doctor: Nabeel				Patient: Mr Ameer			
4.6	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	28	Muslim	B.A of Medicine	M	32	Muslim	Diploma

1 Dr Nabeel: *مسكنات/ اخذت؟*

[Did you take analgesics?]

2 Mr Ameer: … من برا ‘Cold and Flu’ اخذت بندول

[I took Panadol Cold & Flu. I have taken it from a private pharmacy…]

Mr. Ameer had the opportunity to produce the medical term (Fage-Butler & Nisbeth Jensen, 2016; Koch-Weser et al., 2009) ‘Panadol Cold & Flu’ which clearly indicates his familiarity of

this medical term during obtaining the history (Koch-Weser et al., 2009) which belongs to the category ‘medication brand names’ (p. 647).

When the researcher asked him to give the reason behind his production of this medical term, he replied:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
4.7	Interview	Mr Ameer	M	32	Diploma	Muslim

"من الثقافة، ومن مستوى الدكاترة كلهم حكولي "

[From culture and doctors.]

It should be highlighted that the kind of knowledge of medical terminology that Mr Ameer has is, thus, not restricted to his ‘experiential knowledge’ (Fage-Butler & Nisbeth Jensen, 2016), but caused by exposure to several medical treatments in the past (Koch-Weser et al., 2009).

4.2.2 Perspective of patients

Patients identified two obstacles that affected their understanding when communicating with their doctors: The use of medical English jargon by doctors and the use of English between doctors in front of them.

4.2.2.1 The use of medical English Jargon

On the part of patients, use of medical English jargon by doctors, which is unfamiliar to patients, created another aspect of communication barrier (Amp et al., 2013; Farahani et al., 2011; Koch-Weser et al., 2009; Rocque & Leanza, 2015; Taiwo, 2013; Wiener et al., 2013) as evident in the following fragment below:

Mr Tamer, one patient illustrates this barrier:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
4.8	Interview	Mr Tamer	M	34	Secondary	Muslim

والدكاترة الأكثر اللي يكونوا موجودين، ما بيكونوا بنفس المنطقة؛ يعني صعب. يعني لما ما يكون من نفس المنطقة الدكتور ؛ بيكون اللغة والمصطلحات العلمية غريبة شوية."

[The majority of doctors here are not from our region, which would make their language and the medical terms that they used seem weird.]

Mr Tamer claims that a clear language is essential for mutual understanding between doctors and patients particularly when doctors do not share the same "traditional rural accent" (Hayek, 2016, p. 109) of the region. When the researcher asked him if his/her doctor would explain any medical terminology that he/she uses during the medical consultation or if he needs clarification of any ambiguity, he replied:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
4.9	Interview	Mr Tamer	M	34	Secondary	Muslim

" لازم أسأل، لأنه هو متعود طبيعته إنه دراسته هيك يعني لغته اكثر شيء بتكون اللغة الإنجليزية."

[I have to ask, because of his profession and education, he is used to using English terms.]

Mr Tamer argues that the nature of doctors' education (Hamdan & Hatab, 2009) - English being the main the language of instruction in medical schools in Jordan - possibly is the main reason behind the use of English and medical English jargon during the medical consultation (Al Heeti & Al Abdely, 2016; Beaugrande et al., 1994; Improta, 2011).

The patient Ms Rana has described the misunderstanding that occurred between her and her doctor as a result of language barriers:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
4.10	Interview	Ms Rana	F	27	Secondary	Muslim

" كتير كان يحكي إنجليزي. وأخر شيء قلت يا دكتور بدي أفهم، وحكا لي."

[He spoke a lot of English terms, and finally, I said to him, "I want to understand", and he made me understand.]

Ms Rana identified that language as a barrier caused treatment misunderstanding which likely first lead to frustration for her in receiving quality treatment. She advocated for herself by asking for clarification about her diagnosis in order to help her understand her illness better.

Span (2006) maintained that language barriers could negatively impact the health outcomes of limited English proficient patients. Therefore, it is the responsibility of doctors to guarantee mutual understanding, educate patients on their condition and improve health outcomes (Aarons, 2005; Hayes et al., 2017; Sturm, 2016).

4.2.2.2 The use of English between doctors in front of patients

Patients reported in the interviews that doctors exclusively use the English language in order to either intentionally or unintentionally exclude them during consultation as a discourse strategy so that they can negotiate their diagnoses and treatments with other doctors, for example, the patient's potentially terminal illness (such as cancer) or when dealing with a sensitive topic. Adegbija (2004) stated that English was used among doctors to exclude the patient from discussion on the nature of illnesess or prescriptions being made. In this study, patients were not satisfied with doctors' behaviour in terms of speaking English between them in front of them as evident in the following fragment below:

In a past experience, Mr Ameer stated that he was excluded by his doctor in a medical encounter when he negotiated his illness and treatment with his colleague. When the doctor did so in English, it made him to feel neglected.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
4.11	Interview	Mr Ameer	M	32	Diploma	Muslim

" تقريبًا قبل سنة لما كنت أعاني من مشكلة زائدة عندي فكان يحكي مع الدكتورة بالإنجليزي، يعني كنت حابب شو بيحكي معها، يحكي مع الدكتورة شكله بستشيرها، مافهمتش "

[Nearly a year ago when I was suffering from appendicitis, the doctor was speaking with a female doctor in English. I wished to know what they were talking about. He might be consulting her for something. I was not able to understand them.]

Mr Ameer added:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
4.12	Interview	Mr Ameer	M	32	Diploma	Muslim

" اتضايقت. أنا فكرت عندي إيشي، هم ما حابين يحكوا لي بالعربي، يتعاملوا بالانجليزي و مصطلحات طبية"

[I got annoyed! I thought I had something serious and they did not want to tell me, so they were using English and medical terms.]

Here, Mr Ameer was extremely angry when his doctor used English to discuss the nature of his illness with another doctor and led him to feel that his condition was serious.

What is clear in the two Fragments (4.11 & 4.12) is that the use of English between doctors as discourse strategy may result in dissatisfaction on the part of the patients. This breakdown in communication between doctors and patients often leads to patient dissatisfaction. Even though it was mentioned earlier that Mr Ameer was a patient with good literacy and ability to use a few English medical terms, he was apparently losing a battle in understanding what the doctors were talking about in English right next to him.

Similar to Mr Ameer, Mr Mamoun spoke from his past experience in that he faced a breakdown in communication with his doctor due to the use of English as is obvious in the Fragment below:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
4.13	Interview	Mr Mamoun	M	65	Primary	Muslim

"مثلًا صار يحكي لدكتور ثاني جنبه لغة إنجليزية. فسألته إيش اللي قلته؟ قال : بحكي عشان نغير علاجك اللي كان سابقًا ونجدد علاج غير الاول".

[For instance, the doctor was talking in English with another doctor and I asked him: 'What did you say? He said: I was talking about changing your previous prescribed medicine and give you another one.]

Mr Mamoun did not voice his dissatisfaction with his doctor's communication style directly, instead he asked him: *'What did you say?'* to reveal ambiguity. Claramita et al. (2013) argued that doctors unintentionally distance themselves from patients in clinical encounters, while patients seem dissatisfied with that communication style.

Seen in the light of the above Fragments (4.11, 4.12 & 4.13), doctors use English on purpose to either intentionally or unintentionally exclude patients in the discussion of serious topics and sensitive treatments which may result in anxiety to them. This partially accounts for why most doctors use English as a way of concealing illnesses and treatments from patients. According to the Communication Accommodation Theory (Giles et al., 1991), doctors use unique styles of communication to highlight differences between them and their patients. CAT can help us to understand how communication is influenced by the intergroup context and how doctors negotiate and communicate their professional identities in organisations . According to Watson et al. (2016) and Palomares et al. (2016), this divergence at the level of social inequality is applied by intergroup dynamics that exist in society in order to maintain social identity and power over patients by using the strategy of exclusion in case of the use of English.

4.3 Lack of understanding

Sometimes, patients do not remember or understand instructions and they do not adhere to medical treatments. Hence, there is a need for doctors to provide patients with education about their health condition to understand the basic health information needed for better health outcomes. If the patient is well educated, lack of compliance to medication, lack of self-risk management and imposing certain types of medication can be avoided and improved.

Some doctors recognised non-commitment to treatment as an obstacle experienced (Cirici Amell et al., 2018) by all patients, not only those with poor or no English language skills but uneducated ones also. It is commonly accepted that medications should be taken regularly to make an important difference toward positive health outcomes.

There was concern that too many patients did not remember instructions or adhere to medication, such as using the tablets in terms of colour and shape, for taking medication as Dr. Salem said:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
4.14	Interview	Dr Salem	M	27	English	Muslim

"لما بتيجي تاخد منه History بتحكيله شو الأدوية اللي أنت بتأخذها.وهذه كثير موجودة عندنا حتى في الطبقة المتعلمة، مبيعرفش الأدوية(chronic) الماشي عليها ، ما تعرف شو اسمائها، حتى بيصير يوصفلك الدواء بيحكيلك شكل الدوا الحبة البيضاء وعليها خط بالنص، وهذا الشيء مش منطق، أو دواء الضغط (عيار5) ما بيعرف شو أدويته، ما بيعرف متى تشخص، ما بيعرف شو اسم المرض. أحيانًا في الأمراض اللي مش كثير شائعة ،المرضى ما بيعرفونها أصلًا."

[When we take his history and ask him what medicines he had been taking even educated patients, he doesn't know the chronic drugs he is taking and even their names. He would describe the drugs according to their shape; something with the white pill and it has a line in the text or hypertension drug (cal. 5) which is not logical. He doesn't know what his medications are and when he was diagnosed and even the name of the disease. Sometimes in case of uncommon diseases, the patients do not even know them.]

Apparently, Dr Salem is not satisfied with patients' overall understanding of their health issues (Levinson et al., 1993). Dr Salem also argues that lack of understanding is not only an obstacle limited to people who can't read or write, but also prevalent among educated people. Accordingly, low literacy meant patients are at a high risk of not being able to process and understand the basic health information accurately.

Another concern for doctors was that some patients requested other medications which were not prescribed by their doctors due to the lack of comprehension (Levinson et al., 1993) and lack of self-risk management (McLaughlin, 2009) resulting in comparatively worse health outcomes as Dr Nabeel states:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
4.15	Interview	Dr Nabeel	M	28	Ukraine	Muslim

" بعض المرضى بحاولوا يفرضوا نوع معين من العلاج بشوفوا انه الافضل وبنضطر انه نقول الافضل."

[Some patients attempt to impose a certain medication as they believe it would be the best and that means we are obliged to say: It is the best.]

Dr Ali faces the same obstacle with his patient. He claims:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
4.16	Interview	Dr Ali	M	28	Ukraine	Muslim

" بعض المرضى بطلبوا العلاج بالاسم،مثلا فولتارين. لو تسألي 90 % من الأطباء بالأردن بستعملوا فولتارين مش لـ كفاءته، كطلب من المريض."

[Some patients would ask for medication by its name, for example, "Voltaren". If you would ask 90% of doctors in Jordan, you will find that they give it to patients, not for its efficiency, but because the patient asks for it.]

Dr Ali and Dr Salm are stating that despite the drawbacks of the requested medications, patients requests for medication would impact their prescribing decisions (McKinlay et al., 2014).

Unlike to what Dr Salem argued (see Fragment 4.14), most doctors identified the need to provide patients with education about their condition to make treatment decisions and understand their treatment and medication. They described patients who had no education about their condition having more difficulties with their treatments, and thus having a lack of understanding of their health outcomes than those who are able to understand their diseases and treatment (The Joint Commission, 2007). Dr Hassan and Dr Salem asserted this issue respectively:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
4.17	Interview	Dr Hassan	M	26	English	Muslim

" لما يكونن المريض متعلم كثير بسهل عليك تشخيص مرضه و خاصة حتى لما يجي يطلب أدوية، بتعرف إنه مستوى تعليمه متدني."

[When a patient is highly educated that may enable us to examine his disease efficiently, particularly when he asks a certain type of medicine, in this case you can identify his low level of education.]

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
4.18	Interview	Dr Salem	M	27	English	Muslim

" كل ما كان "highly educated " كل ما كان يفهم أكثر مشكلته أكثر، تلاقيه بيبحث عنها ويُدرس ،والتزامه في الدواء أكثر. بينما اللي بيكون شوي مستوى التحصيل تبعهم أو العلمي تبعهم أقل، تلاقيهم مش ملتزمين في الدواء وما بيلتزموا بالخطة العلاجية".

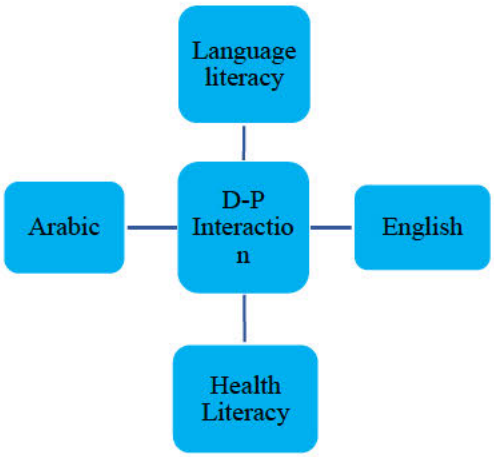
[The more educated are more able to understand their own problem, as they search it and learn about it, even their adherence to medication is better. Whereas less educated do not adhere to the medication and they don't follow the therapeutic plan.]

Based on doctors' arguments, without education about their condition, patients may not understand the treatment and may not adhere to medication (Barnett, 2006).

While this finding from this study is consistent with other studies where patient education has been associated with improved patient adherence (Aarons, 2005; The Joint Commission, 2007; Improta, 2011; Maly et al., 2010; Nguyen, 2016), it is inconsistent with results obtained from a study by Baughn (2012) that revealed no a linear relationship between patient education level and patient reported compliance. Thus, in this study patient education significantly improves adherence; hence, language literacy is the most obvious link to health literacy (see Figure 4.1). For instance, if patients do not have basic reading skills and understanding of health information, this will surely affect their ability to read instructions on medications.

Figure 4.1

Language Literacy and Health Literacy



4.4 Low health literacy of patients

As doctors spoke of their interaction health literacy emerged as a subtheme. Health literacy is defined as "The degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions."

(Nielsen-Bohlman, 2004, p. 5). In this study, patients' low health literacy results, poor comprehension and lack of medical awareness may be linked to many poor health outcomes.

4.4.1 Patient's story-based narrative

Most doctors expressed dissatisfaction in patients' ability to comprehend and express themselves. For example, some patients tend to talk about their symptoms by telling a story; however, sometimes doctors do not have enough time to listen to the entire story. Thus, they might interrupt and ask specific questions (see chapter 5 section 5.2.2.3) (Harvey & Koteyko, 2013). Dr Asma claims:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
4.19	Interview	Dr Asma	F	27	English	Muslim

" يعنى إنتي تكوني بتسألي عن شيء يسترسلوا بشيء ثاني. يعني الطبيب الصراحة بيحدد المريض ، وأنا كثير بحب أركز على الأسئلة اللي إجابتها كلمة كلمتين، بيظهر عندك؟ أو ما بيظهر؟ في؟ أو ما في؟" على أساس أنه بقدر أسيطر وبقدر أطلع الإشيء اللي أنا بدي إياه من المريض".

[You may ask about something, and he/she answers another thing. I usually ask specific questions that need to be answered in two words, such as, this "appears" or "not"? There "is"? or there "is no"?". This enables me to get the specific information that I need from the patient.]

Dr Asma feels that interrupting patients may primarily control the consultation and gain the information vital to diagnose and obtain a health status within the time constraints. In other words, when there are fewer than needed doctors in a hospital to cater for all patients, the duration of consultations is very limited. On the other hand, the use of closed questions can close down a patients' story (Robertson & Clegg, 2016) making the patients feel disappointed in the doctors. The result from this interruption may affect the trust felt between them (Pagano, 2018). This study revealed that patients wanted to be listened to and wished for the doctor to spend more time with them (Pagano, 2018). For example, Mr Ameer mentioned that one of the reasons behind his overall satisfaction of doctors was their active listening.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
4.20	Interview	Mr Ameer	M	32	Diploma	Muslim

"يريحني وارتاح له، ويهتم بي، يفحصني. بظل يستمع إلي ويعطيني الحل. يعني أنا برتاح له كتير زي هيك."

[He should make me comfortable, and he should care about me. He should listen to me while examining me and give me medication; thus, I am satisfied.]

Another patient, Mr Murad insists listening is a basic need in communication with a doctor and treatment agreement. Overall, listening was found mostly associated with greater patient satisfaction (Aarons, 2005; Henry et al., 2012) in this study.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
4.21	Interview	Mr Murad	M	46	Diploma	Muslim

" إذا كان الطبيب بستقبل منك و بيسمع لك مليح ، بتواصل معك اكثر، وإذا بتشوفه مش شاعر فيك وإن اللي بتحكي له غير ملقي له اهتمام، فيبطل التواصل، ف بصير يلا خلاص خلينا نأخذ العلاج و نمشي بدون ما نوصل للعلاج إنه نافع أو غير نافع."

[If you feel that doctor is not concerned about you the communication ends. What happens is that you take medicine and go without bothering about whether it is useful or not.]

Dr Sabri argues that although he listens to patients' complaints, some cannot express their complaints due to their limited understanding as is clearly shown in this fragment:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
4.22	Interview	Dr Sabri	M	27	English	Muslim

" طبعاً بدنا نشخص مرض ، وبنسمع للأعراض عند المريض، وبنسمع لشكوى المريض من أمتى، و في برتكول معين بمشي عليه، بعض المرضى بيحيلك أنه ما بدي تعملي فحوصات..... هون يسقط المريض من عيني، معليش في الكلمة ، يسقط المريض من عيني، ليش؟ لأن أنا مثلا ممكن أكون شاكك في أشي معين، ممكن يكون خطير في لحظة من اللحظات."

[Of course, we have to diagnose the disease and listen to the patient`s complaint and ask him how long he has been suffering from these symptoms. We follow a certain protocol. Some patients tell you that they do not want to be examined… he would fall in my eyes, sorry for the word because perhaps I have doubts about something that may turn serious at one moment.]

Dr Sabri states that doctors and patients need to work together to pursue care that improves health and patients' satisfaction.

Doctors' low expectation of patients' health literacy results from a lack of patient medical awareness, lack of comprehension, and lack of understanding (See Figure 4.2). The interviews

revealed that the majority of doctors expressed little satisfaction of patients' medical knowledge as Dr Ali states in the following fragment:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
4.23	Interview	Dr Ali	M	28	Ukraine	Muslim

"أكثر شيء صعوبة هي ثقافة المرض، و ثقافة المجتمع اللي إحنا فيه، مفيش تثقيف أو وعي صحي عند المريض بحيث تتعامل معه بسهولة، أو بسلاسة أو بكذا، بس هذه أكثر شيء، هذه الفكرة الرئيسية ".

[The most difficult thing is the culture of disease, the culture of the society we live. There is a lack of patient's health awareness that hinders dealing with him easily or smoothly. Hence, this is the main issue].

Without consulting a doctor, some patients took medication at the wrong time of day or stopped their therapy if they were concerned about the side effects. This non-compliance leads to difficulty in medication as Dr Ali explains:

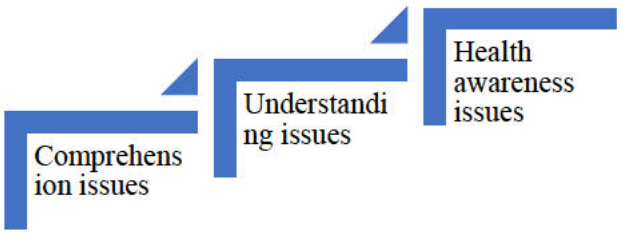
Fragment	Date source	Doctor	Gender	Age	Education language	Religion
4.24	Interview	Dr Ali	M	28	Ukraine	Muslim

"من المريض نفسه، من عدم استيعاب النصائح الطبية، وعدم استيعاب للمقولات أو الأدوية المعينة، بده دواء معين.

[There is no cooperation by the patient himself; he does not understand the medical advice, he does not accept the medicine prescribed by the doctor, because he wants a certain medicine.]

Figure 4.2

Three Levels Of Issues With Patients



Dr Ali also states that lack of health awareness is the main reason for lack of comprehension among patients:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
4.25	Interview	Dr Ali	M	28	Ukraine	Muslim

" وعي طبي ما في بشكل عام في المجتمع ، نحاول بشكل عام ترفيع المستوى، أو رفع مستوى الوعي عند المجتمع".

[Generally, there is a lack of medical awareness in society. We should try to raise the level of medical awareness in society.]

He added when the researcher asked him how to raise the level of medical awareness in patients:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
4.26	Interview	Dr Ali	M	28	Ukraine	Muslim

" اللي هو رأيي الشخصي، من حيث الأطفال، من حيث المدارس؛ إنه في مواد معينة زي النظام الأمريكي، زي النظام الروسي، زي النظام البريطاني، في وعي هناك بالتدريس، بالمدارس ، في الأماكن الصحية، عن الأمراض عن كذا، عن المضادات وفوائد المضادات الحيوية مثلًا وفوائد أدوية معينة ممكن يستخدمها، بأي وقت وأدوية ممنوعة".

[In my personal opinion, such as in the American or in the Russian or in the British education system or even in healthcare settings, there is awareness in learning about various diseases, antibiotics and certain medicines and the benefits of them or learning about other medicines that might be prohibited].

Dr Ali identified lack of medical awareness as a general barrier for doctors providing treatment and patients' understanding of this treatment. Presumably, patients' level of comprehension of the doctor's advice or instructions would be greatly enhanced by a higher level of education (Pagano, 2018) which would aid successful communication with doctors (Aarons, 2005).

Consequently, doctors argued that some patients had different needs; for example, some expected them to teach and explain more, while others just wanted to finish their medication. In the example below, Mr Ahmad, a 24-year-old male patient has limited medical knowledge about the treatment. The researcher observed his attempt before video recording to convince the doctor, Dr Sabri, to give him a certain type of injection without being examined. Dr Sabri however, did not agree with him as he had a duty of care and asked him to enter the examination room.

Fragment	Date source	Doctor: Sabri				Patient: Mr Ahmad			
4.27	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	27	Muslim	B.A of Medicine	M	24	Muslim	Secondary

1 Dr Sabri: أنا بعطيك ابرة " أليرفين" ما عندي مشكلة بتخفف عندك التحسس

[No problem! I will give you an "Allerfin" injection to relieve sensitivity.]

2 Mr Ahmad: أنا بدي اشي يخفف

[I need something to relieve sensitivity.]

3 Dr. Sabri: أنا فاهم عليك انها بتخفف. أعراض الحساسية بشكل عام رح تقل مع حبوب التحسس و حرام توخذ مضاد حيوي اذا بدك تحافظ على صحتك. اذا مو حاب تحافظ على صحتك أنا رح اكتبلك حيوي.

[I understand that it relieves the sensitivity and its symptoms generally get decreased with sensitivity tablets. It is Haram, potentially harmful, to take antibiotics if you want to improve your health but if you do not, I will prescribe antibiotics for you.]

4 Mr Ahmad: لا، خلص ما بدي

[No, I don't want.]

As a basis and starting point for a dialectic dialogue, Dr Sabri used the patient's understanding of the medication to convince him of what he should take to decrease the sensitivity he suffered from (see Line 3). Assessing the patient's understanding of the illness and giving him the necessary knowledge to manage his or her health is important not only to reach an agreement (Nunstedt et al., 2017) but to increase his self-care ability (Ekman et al., 2011).

Dr Salem states that medical knowledge can create a barrier to patients understanding their treatment and medication:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
4.28	Interview	Dr Salem	M	27	English	Muslim

أه. أجاني كان مريض أحد التجارب اللي مرت علي، كان مريض فهو كان في عنده مشكلة في عضلة القلب، بيحيكيلي إنه أنا من جديد شخصوني عندي مشكلة في عضلة القلب، وأنا مريض ضغط، فبيسألني إنه شو علاقة الضغط في عضلة القلب. ventricles and) فأنا بدي أشرح له إنه لما بيكون في ضغط، وبيسأل إنه ليش عضلة القلب بتتأثر، بحكيله أنا إنه في عندنا في تلك اللحظة مبعرفش أنا شو معناها. بعدين بصراحة وهو جالس أمامي طلعت موبايلي وترجمتها و قلت البطين (atria والأذين في القلب. فبدي أحكيلك إنه بيصير في تضخم في عضلات القلب، أو زيادة في سمك جدار عضلة القلب، ومش قادر في عضلة القلب وليش بيصير فيها (Hypertrophy) ألاقي المصطلح اللي هو زيادة أو تضخم في العضلة. فـ بحكي ، وأقعد أقول له لأ؛ بإتجاه ضغط عالي يواجه ضغط (against high pressure) لأنه الدم بيمشي (Hypertrophy عالي، فشعرت أنه المريض ما بين أنا بحكي كلمة إنجليزي وكلمة عربي، ضاع بين هذه وهذه اتشتت، ما أخذ المعلومة ما بعرف لغاية الان (aorta) الكافية. اضطريت إني أرسم له عضلة القلب على ورقة. و الشريان اللي بيطلع من القلب ، كيف بتصير عضلة القلب بتبذل مجهود (aorta) اسمه بالعربي، وكيف الدم بيمشي وكيف لما بكون في ضغط زيادة على (Very simple)زيادة ؛ زي إحنا لما نلعب جيم، نبذل مجهود زيادة والعضلة عندنا بتكبر. قعدت أشرحله بطريقة تكون وحسيت إني ما وصلت المعلومة.

[A patient asked me "what is the relation of hypertension in the heart muscle?" and "why does this affect the heart muscle?". I want to explain to him that we have "ventricles and atria" and at that moment I couldn't think what it means in Arabic. Then honestly while he was sitting in front of me, I used my mobile, and I translated it into Arabic "البطين و الأذين" in the heart. I want to tell him that there is swelling in the heart muscles or an increase in the thickness of the heart muscle wall and I couldn't find the term which is increasing or swelling the muscle. So, I said "hypertrophy" in the heart muscle and why it happens because the blood is flowing against high pressure and I will tell him no; it is in facing high pressure. I felt that he gets lost between the English word and the Arabic word and he became distracted as he didn't get enough information. I had to draw the heart muscle on a paper and the artery that comes out of the heart. However, I didn't know till now what its name is in Arabic and how the blood flows and how when there is pressure in the "aorta" and how the heart muscle is making an extra effort like when we go to the gym, we make an extra effort, and the muscle we have is growing bigger. I tried to explain to him in a very simple way, and I felt that I didn't pass on the information well.]

When the patient did not seem to understand his medical problem, in order to verify that the patient understands his disease and diagnosis, Dr Salem felt it his personal responsibility in helping the patient understand his medical issue by drawing pictures and providing a full explanation. Doctors can use helpful strategies such as diagrams or pictures when referring to medical terms to ensure mutual understanding as well as effective interaction with their patients (Barrett, 2013; Barrett et al., 2008; Berger & Cartmill, 2017).

Patients who had LEP reported varying levels of English fluency and literacy. Some reported that they could understand spoken English but had limited understanding of written communication in English. Twelve of the patients reported the inability to read or write English. Regardless of LEP, all patients preferred Arabic for communication. Patients described their experiences as they looked for understanding their health issue and health instructions including medication. Mr. Sami, a male patient spoke from his experience:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
4.29	Interview	Mr Sami	M	37	High/ B. A	Muslim

"أنت لما تكون مثلاً فاهم بعض المصطلحات بيوفر على الطبيب، و بيوفر على المريض الوقت، والغاية"

[*When you understand some English terms, it helps the doctor, by saving time and purpose.]*

He added:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
4.30	Interview	Mr Sami	M	37	High/ B. A	Muslim

" نعم، بس لأنه بتعرفي دايماً الدكاترة أوقات لازم الإنجليزي يدخل في الكلام في مجرى الحديث "

[Yes, but you know that doctors sometimes use English words during their speech.]

In his belief, Mr Sami claimed that patients should be more aware of their chosen words based on their health education; this would particularly save a great deal of time and make for a more satisfactory D-P interaction despite the presence of a relatively some English words by doctors during their interaction with patients.

Past research suggests that patients with LHL who have been diagnosed with an illness may not understand their health circumstances and the instructions that they are required to follow in order to manage their illness (Brown, 2016; Koch-Weser et al., 2009; Pagano, 2018; Schillinger et al., 2002). As a result, a patient may experience several adverse health outcomes which may lead the patient to experience an inability to follow recommendations; this could be serious. Patients with LHL may experience a high risk for medication mix-ups and dosage errors. Patients are negatively affected by inappropriate medicine labelling and avoidable medication interactions in all literacy levels (The Joint Commission, 2007).

4.5 Code-switching motivations

CS is a communicative strategy used by bilinguals to signal several psycholinguistic and social functions (Alkhlaifat et al., 2020). During the medical consultations, numerous CS instances among doctors and patients were noted. The study found that Jordanian bilingual doctors inserted English into Jordanian Arabic speech for psycholinguistic and social reasons. The Communication Accommodation Theory (Dragojevic et al., 2016; Gallois et al., 2005; Giles, 1975; Giles et al., 1991; Giles & Ogay, 2007; Giles & Smith, 1979) seeks to identify the social and psychological motivations for codeswitching among doctors and patients. In this study,

code-switching among doctors and patients during the medical consultation basically occurred to facilitate D-P interaction and for two main reasons: filling lexical gaps and accommodation.

4.5.1 Code-switching to fill a lexical gap

In this study, despite the fact that doctors and patients have social differences in relation to the power inequality and interaction, doctors are able to alleviate these. To achieve this, doctors use code-switching when monolingual patients do not understand their message. Code-switching is a natural outcome of languages in interaction, as doctors are educated in a language other than English (Magana, 2013). Code-switching is commonly observed in interactions where a minimum of two languages, dialects or registers are used interchangeably within a specific genre (song, talk) during a discourse in a multilingual setting (Eastman, 1992).

Given their bilingual educational background, most doctors speak Arabic (the local dialect), English and languages other than English. Fifteen patients were considered monolingual in Arabic based on the fact that Arabic is the official language in Jordan (Al-Wer, 2005) and three of them were considered bilingual in Arabic and English based on their education in English.

Since the doctors are defined as bilingual participants who regularly alternate between English and Arabic and different dialects (the Northern dialect and Southern dialect), code-switching is thus available mainly in four main phases of the medical encounters: obtaining the medical history, clarifying information, revealing the diagnosis and the condition management (Heath, 1992).

As seen in the following Fragment 4.31, while the doctor avoids medical English jargon in some cases he code-switches from Arabic to English, which may not be obvious to the patient, by using the medical term “severity”. Here, perhaps, the code-switch was used because of easier accessibility and retrieval from memory to fill a lexical gap. Subsequently, the doctor code-switches from English to Arabic to accommodate to the language of the patient. This

accommodation may require a switch in language from English to Arabic as in the following example:

Mr Sami visited the hospital as he had difficulty breathing due to common cold symptoms, including cough, fever and a runny nose. Mr Sami described his health problem to Dr Salem who negotiated the information, which led to a diagnosis of the flu. In his interview with Mr Sami, Dr Salem code-switched from Arabic to English although this may not be obvious to the patient, such as using the English medical term 'severity' (line 3).

Fragment	Date source	Doctor: Salem				Patient: Mr Sami			
4.31	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	27	Muslim	B.A of Medicine	M	37	Muslim	High/ B. A

1 Dr Salem: متى بلشت هذي الأعراض معك ؟

[When did these symptoms start?]

2 Mr Sami: تقريبا صارلي يومين

[Nearly two days ago.]

3 Dr Salem: من يومين على نفس "severity" ؟

[Two days ago, with the same severity?]

4 Mr Sami: نعم، نفس الشيء

[Yes, the same.]

5 Dr Salem: يعني (Hesitation) نفس شدة المرض؟

[I mean, the same severity of illness?]

6 Mr Sami: نعم، نفس الشيء

[Yes, the same.]

Here, the doctor was surprised that Mr Sami did not have this severe illness checked until two days later. Nor could he believe that his patient had not realised the severity of his medical condition to the point that he could not help uttering 'severity' in English. The doctor's paralinguistic cue such as 'hesitation' (Line 5) was useful in refreshing the memory bank and then switching to the Arabic language. Hence, CS was inserted due to the easier accessibility and retrieval from memory. In his interaction with Mr. Sami, Dr Salem may code-switch from

English and used the Arabic term "شدة المرض" (Line 5) not only to gather information about the patient's illness but moreover, to accommodate his speech style to the patient. Another motivation for CS is for the purpose of confirmation. The doctor is proficient in English and used technical terms. However, the patient was brought up in Jordan in one language and was not fluent in the medical register in English as the doctor was. Nevertheless, the patient's reply would have indexed the patient's high level of education in English as he confirmed twice "Yes, the same" (Line 4 &6). According to Gallois et al. (2005), this patient used the accommodation as a strategy to signal his involvement, in order not to appear distant from the doctor.

Similarly, in the following Fragment 4.32, Dr Ali code-switches when interacting with Mr Tamer. In this instance, the doctor is clarifying information about the patient's illness and using the English terminology "Pain" (Line 5).

Fragment	Date source	Doctor: Ali				Patient: Mr Tamer			
4.32	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	28	Muslim	B.A of Medicine	M	34	Muslim	Secondary

1 Dr Ali: إنت بتحط زيت جوا الأذن و بظل أربع أو خمس ساعات بالأذن الداخلية و بتقلب؟ هذا الزيت بظل بقايا منه جوا. بعد ما تحط زيت، بتنشف؟
[You put oil into your ear, and it remains up to five hours and then you turn your head to the other side? Unfortunately, this oil can leave residues inside. Do you dry your ear after?]

2 Mr Tamer: آه، بنشف
[Yes, I do]

3 Dr Ali: بشو بتنشف؟
[What do you use for that?]

4 Mr Tamer: بنشف بنفس منظف الأذان
[I usually dry it with cotton swabs]

5 Dr Ali: عندك هون pain؟
[Do you have pain here?]

6 Mr Tamer: لا،كيف؟
[No, I don't. What do you mean?]

7 Dr Ali: يعني وجع
[Pain means ache.]

8 Mr Tamer: نعم، في

[Yes, I have.]

Dr Ali code switched due to the lack of immediate availability of the required word or for its easy retrieval from memory (Gardner-Chloros, 2009). Hence, he code-switched from Arabic to English as he might speak to fill a lexical gap. English synonyms were integrated either due to the habitual use of the word or for their easier accessibility or retrieval from memory. According to Milroy and Muysken (1995), a speaker's choice of preference code depends largely on their life experiences, which includes their social and educational factors. Thus, language codes may be switched at any point in the discourse due to the bilingualism of the doctors and their language preference. In order to function effectively for better mutual understanding and to avoid misunderstanding, Dr Ali used the strategy of repair. Tarone (1980) defined 'repair' as 'the discoursal rules for who corrects whom, when and the correction of a linguistic form as well as negotiation of intended meaning' (p. 427). Dr Ali deployed immediate repair strategy after CS to ensure there was understanding of what had been uttered.

It was observed that the participants could code switch due to the unavailability of a word or phrase in their mother tongue. Hence, they may code switch from Arabic to English within the conversation to fill a lexical gap (Alkhlaifat et al., 2020). Perhaps, English synonyms were integrated either because of their unavailability in Jordanian Arabic or for their easier accessibility or retrieval from memory.

This demonstrates code-switching, where participants filled in missing words or phrases from memory due to the psycholinguistic state of the speakers (Gardner-Chloros, 2009; Jevtović et al., 2020). An insertion of words or phrases by speakers may also correlate with the fact that the words or phrases are retrieved more rapidly in dialogue (Ariffin & Rafik-Galea, 2009; Green & Wei, 2014). This is similar to other studies conducted in the context of education, as discussed in the literature review (see Mahsain (2015) and (Al-Hourani & Qasim, 2016).

4.5.2 Code-switching for accommodation purposes

While it is true that there are social differences between doctors and patients in relation to the power inequality (Giles & Ogay, 2007) and communication, doctors made attempts to alleviate these for effective communication purposes. Hence, doctors worked toward achieving this goal and used CS when monolingual patients did not understand their message. Hofstede and Bond (1988) describe this as power distance, that is the extent to which a culture believes and accepts unequal power in institutions and organizations. The relationship between patients and doctors is based on respect, moreover, doctors need to be respected by their patients for their medical expertise and specialized knowledge and skills (Cordella, 2004). For example, in high power distance cultures, doctors saw themselves as having expert knowledge of patients' health conditions, instead of valuing themselves as being equal and cooperative (Lawton et al., 2015) . Due to doctors' professional expertise, patients feel that they are in a powerlessness position during medical consultations and should obey doctors' instructions, thereby increasing the doctors' power in terms of their status and interpersonal roles (Rocque & Leanza, 2015).

Gallois et al. (2005) stated that the speakers vary in their speech styles either to distance or strengthen the relationship between themselves and other speakers according to their social identity. For the purpose of convergence, they adapt their speech style with others (Palomares et al., 2016; Watson et al., 2016). During the conversation, participants collaborate to create a meaningful message. The analysis of the data showed that participants code-switched either to converge or equalize power relations between them.

In the example above in Fragment (4.32), while the doctor uses the English terminology "Pain" (Line 5) to fill a lexical gap, the patient interrupts him and asks for clarification. The doctor code-switches from English into Arabic "وجع" (Line 7) to accommodate to the language of the patient. In addition, by virtue of the doctor's knowledge of his patient, he can accommodate

his patient's level of English proficiency (Wood, 2019). The patient's misunderstanding of the doctor's terminology may contribute to failure in the treatment process.

On the other hand, there was also an instance where the patient would switch to English words and medical English jargon even though there were linguistic equivalents in order to accommodate with his doctor as in the example below:

Fragment	Date source	Doctor: Amjad				Patient: Mr Fadi			
4.33	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	54	Muslim	B.A of Medicine	M	46	Muslim	High/ B. A

1 Dr Amjad: شو مالك؟
[What is your complaint?]
2 Mr Fadi: انا تعرضت لTraumaانجرحت
[I have a trauma.]
3 Dr. Amjad: انجرحت ، اها؟
[You were injured?]
4 Mr Fadi: من الليجو تبع الأطفال
[From lego[2] for children]
5 Dr Amjad: دعست عليها؟
[You fell off it?]
6 Mr Fadi: دعست عليها وما شفتها
[I fell off it and I did not see it.]
7 Dr Amjad: إلها حفة حادة؟
[Does it have a sharp edge?]
8 Mr Fadi: نعم، صحيح
[Yes, right.]

In Fragment 4.33, Mr Fadi is a dentist who has trauma in his foot, and he switches to the use of English medical jargon to accommodate with the doctor. Mr Fadi attempts to make himself more similar and intelligible to Dr Amjad when he replied ' انا تعرضت لTraumaانجرحت ' (line 2) *[I have a trauma.]* and used the technical register 'Trauma'. Dr Fadi's use of the medical term may imply that he is not a layperson without knowledge of the medical field. According to Bullock and Toribio (2009), CS by proficient bilinguals may occur within particular cultural groups. Giles and Smith (1979) argued that individuals could attempt to make themselves more

[2] Lego are plastic construction toys for children.

similar and intelligible to others by lessening their typical accents, slowing down their speech, or delivering of their message that aims listener's familiarity with the topic of discussion. According to the CAT, the patient is accommodating with the doctor as he is adjusting his speech behaviour with the speech behaviour of the doctor. This indicates that this patient is trying to converge and consider the doctor as part of his in-group (doctors) and not trying to distance himself from the doctor (Alkhlaifat et al., 2020; Palomares et al., 2016). However, the doctor's language choice will be analysed as an attempt to distance himself from the patient by choosing a different code (in this case, Arabic). According to the Communication Accommodation Theory (CAT), if the speaker refuses to accommodate the language of conversation of other interlocutors, then this leads to divergence (Giles & Smith, 1979; Palomares et al., 2016).

In the second extract of the same conversation, the doctor advises the patient about the treatment required in the case of trauma, but the patient does not agree and strongly suggests another treatment as observed in the following fragment:

Fragment	Date source	Doctor: Amjad				Patient: Mr Fadi			
4.34	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	54	Muslim	B.A of Medicine	M	46	Muslim	High/ B. A

1 Dr Amjad: هذي بدها خياطة، شو رأيك؟
[This wound need stitching. What's your opinion?]
2 Mr Fadi: Sutures انا ما بفضل الخياطة. انا بدي
[I don't prefer sewing. I want sutures.]
3 Dr Amjad: بس هذي مفتوحة لازم تتخيط
[But it is open, it needs stitching.]
4 Mr Fadi: كثير؟
[A lot?]
5 Dr. Amjad: اه مفتوحة. بدها خياطة
[Yes, it is open. It needs stitching.]

In this fragment 4.34, the patient's desire to converge creates familiarity and creation of an informal environment that can be explained using Giles's accommodation theory, which assumes that communicators adjust to a situation either to converge or to diverge from the listener. There are two important motives for convergence by Mr Fadi in this fragment, one is the desire to get approval for the suggested treatment from Dr Amjad. The evidence is that of similarity-attraction: The more similar we are to our interlocutor, the more he or she will like or respect us and the more social approval gaining we can expect (Byme (1971) as cited in Giles & Ogay, 2007). Second, it is possible to break the power discrepancy created by the doctor's professional status and bring the doctor and the patient closer (Youssef, 1993) since doctors are highly educated in English. This can also be interpreted in terms of diglossia that the official language could be more attractive and more rational than the local language according to Ferguson's concept of diglossia (Fasold, 1984). Consequently, using English terms could portray the patient as prestigious and seem to be a way of expressing convergence with the doctor (Singo, 2014).

On the other hand, Dr Amjad again does not adapt to Mr Fadi's speech style which asserts his medical expertise, his power role as a medical professional and Mr Fadi's role as a patient under treatment. Emphasising the differences in speech leads to divergence between speakers (Palomares et al., 2016). This is similar to Gumperz's notion (1982a) of 'we-code' and 'they-code', in which interlocutors differ their verbal and non-verbal communication according to their relationship with the other interlocutors during the language interactions and its motivational factor for code choice. For this reason, the Communication Accommodation Theory aims to identify the motivational factors behind the variation in speech styles.

When two speakers converse, convergence between them can also take place in relation to the content of what they say. Speakers can defer to the listener and increase mutual clarification as

they believe that the listener holds the knowledge (Giles & Smith, 1979). For example, as mentioned earlier in Fragment 4.31 during the consultation with the patient, Mr Sami (male, 37), he replied to the question '؟ "severity" نفس على يومين من' (line 3) *[Two days ago, with the same severity?]* with an expected adjacency "yes, the same". This type of code-switching is motivated by the content of the preceding question. In fact, some patients may be engaged with doctors in a collaborative process and social negotiation leading to satisfaction; not just engaging in a one-way information flow D-P clinical interaction.

Likewise, this key finding is similar to other studies elsewhere (Singo, 2014; Wood, 2019) which have shown that code-switching is a strategy used by speakers for seeking to diverge and converge in their speech in order to accommodate the other interlocutors for effective communication. The use of code-switching would enhance not only communication but also "the bridging of language separation" (Mabule, 2015, p. 345).

4.6 Challenges in diagnosing with opposite-sex

An understanding of doctors' motivations and patients' satisfaction in order to improve healthcare delivery and safety, and given the difficulties that challenge doctors - particularly in rural areas - has increased the importance in health communication and healthcare research (Farokhzadian et al., 2015).

This theme has identified and describes the main challenge by doctors in diagnosing based on their negative experiences in general practice. The main concern for doctors was regarding gender preferences in dealing with patients. In fact, gender among other factors is an important consideration during the medical visit, and it should be considered in studies examining the doctor-patient interaction (Bertakis, 2009; D'Agostino & Bylund, 2014; Penman, 2015).

The vast majority of doctors in the study agreed that gender differences influence the D-P relationship and diagnosing in terms of religious and cultural belief, and expression of complaints about sensitive issues. Dr Salem considered the exposure of female patients' body would be uncomfortable and against their religious beliefs. Niqab-wearing patients occasionally refuse to expose their faces.

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
4.35	Interview	Dr Salem	M	27	English	Muslim

" مريضة أنا جتني وكانت مُخمرة لابسة نقاب؛ فبتشكي من "sore throat" وإنه في ألم لما بتبلع، فطلبت إني أفحص حلقها، فرفضت إنها ترفع النقاب. يعني عالجني من دون ما تشوف حلقي. هذا من المواقف اللي كانت بصراحة أنا تضايقت منها، أنا زعلت لأن أنتِ داخلة على طبيب المفروض إنه بتشكيلي. أنا صعب أكشف غيبا."

[A patient came to me, and she was wearing a veil, complaining about sore throat and she suffered from pain when she swallowed. I asked to check her throat; she refused to raise the veil. She said, "examine me without seeing my throat". This is one of the situations that I was really upset because you are coming to see a doctor that is supposed to whom you complain. I'm hard to reveal.]

Dr Salem replied when the researcher asked him if this female patient would probably take off the veil in the presence of a female doctor and not a male doctor:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
4.36	Interview	Dr Salem	M	27	English	Muslim

" لو دخلت على طبيبة ممكن أه تكشف عن وجهها بس أنا في تلك اللحظة عندي sister، أنا موجود عندي sister لما طلبت إني أفحصها ومع ذلك ما رضيت، وبتفرق هذه برضه من مكان إلى مكان، إذا انتقلنا للمدن الرئيسية لأ، بكل بساطة تطلبها تفحص جسمها، بتحكيلها معلش بدي أفحص جسمك بيكون السيستم موجود، بتفحص بكل سهولة، هنا في صعوبة بالبعض مش الكل إنك تلمس جسم مريضة"

[Yes, but at that moment I had a female nurse when I asked that I check it out, but she refused, and this differs from place to place. Simply, if we move to the main cities, we may ask her to check her body, you may examine with ease, but here there is a difficulty with some but not all.]

Dr Salem believed that niqab-wearing patients might not accept to be examined by male doctors because of religious reasons:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
4.37	Interview	Dr Salem	M	27	English	Muslim

" وبسبب الثقافة إحنا بنتجنبها قدر الإمكان إلا في الحالات الطارئة فنوجهم للطبيبات "

[It is because of culture. As far as possible, we avoid that as much as possible except in case of emergencies; we may direct them to female doctors if it is possible.]

Another evidence on how gender differences impact diagnosing is in the following example.

Although Dr Nabeel has no challenges in diagnosing patients - if he did have difficulty in examining patients' complaints he would refer it to a specialist or laboratories where required analysis tests could be performed - gender differences emerge making it difficult when he diagnoses them.

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
4.38	Interview	Dr Nabeel	M	28	Ukraine	Muslim

"لا. معظم الحالات اللي تجي تكون واضحة، ما في داعي لصعوبة، ولو استصعب لينا اشي ممكن اقدر أحوله على اختصاص، أو العيادات وهناك تتم التحاليل. الإناث إذا ما تسألها أنت سؤال ما بتحكي الاعراض كاملة، و بالتالي بتوه أنت."

[No, most of the cases are clear, no difficulty, and if there is something difficult, we can refer the patient to a specialist or a lab where analysis tests could be done. More precisely, females. If you do not ask them, they do not tell all the symptoms, and thus you become lost.]

In this example, Dr Nabeel reported the main cause for a patient refusing to reveal all the symptoms (Al Momani, 2014; Ball et al., 2015) is shyness. A female patient may feel shy to share sensitive information about private medical issues with male doctors. Previous studies in this area have examined how the gender of both doctors and patients impact the process of care (Al Momani, 2014; Bertakis, 2009; D'Agostino & Bylund, 2014; Farahani et al., 2011; Padela & Pozo, 2011; Pagano, 2018). Islam encourages individuals to consult health providers of the same gender about their health problems (Al Momani, 2014; Padela & Pozo, 2011). In seeking a healthcare provider, the first choice for Muslim female patients would be a Muslim female doctor, followed by a non-Muslim female doctor. However, when no female doctors are available, a Muslim male doctor is the second choice and a non-Muslim male doctor the third choice (Padela & Pozo, 2011).

The expectation for patients avoiding physical and eye contact with a healthcare provider of the opposite gender can impede doctor-patient interactions (Abudari et al., 2016; Attum et al., in press; Tackett et al., 2018), as is evident in the fragments above and in observation data in chapter 5. Some doctors were aware of this and referred patients of the opposite gender to a doctor of the same gender.

4.7. Doctors' health communication training

Many interactions between doctors and patients are often not science, but the communication of that science. Thus, communication skills can be improved with effective training (Boissy et al., 2016). This study looked into the perception of doctors regarding health communication training during their medical education. The main theme emerging from the question 'Have you received any (intercultural) health communication training as part of your university coursework? was their lack of health communication skills and training. The study revealed that the majority of doctors did not receive any training during their university coursework. For example, some doctors reported that training was not required to accomplish their university coursework. They added that they gained clinical experience by dealing with many patients and from the close supervision of senior doctors.

Dr Hassan spoke about the lack of health communication training provided to help them to communicate with their patients in the clinical setting during their medical education.

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
4.39	Interview	Dr Hassan	M	26	English	Muslim

"كان عنا ضعف ب هذي القصة ، مع الخبرة ومعاشرة الأطباء الأكبر منا نتعلم"

[There was a weakness in this respect, but with dealing with patients and senior doctors, we gained experience.]

Dr Hassan stated that they can overcome this gap of inadequate training by improving their communication skills through personal experience and by observing senior doctors' treatments with patients.

Similar to Dr Hassan, Dr Amjad claimed that his education lacked instruction on how to communicate with patients consisting of the basics only which was insufficient for clinical interaction.

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
4.40	Interview	Dr Amjad	M	45	English	Muslim

"للأسف لا ما كان، معظم التفهمات مع المريض أخذناها بالخبرة، أم كأساسيات مش كثير"

[Unfortunately, not. Most of the communicative skills learned from dealing with the patient. As basics in my study program, it was not too much.]

Dr Amjad identified that medical education should go beyond medical knowledge to effectively communicate with patients and fully engage with their experiences (Ha & Longnecker, 2010).

Doctors acknowledged the importance of past experiences with patients as this training is not part of the medical school curriculum. For example, Dr Shadi claimed that despite not receiving communication training during medical school, he demonstrated effective doctor-patient communication skills through intensive supervision by senior doctors during his study.

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
4.41	Interview	Dr Shadi	M	65	English	Muslim

" أحنا كنا طول فتره دراستنا من السنة الثانية فما فوق نقضيها في المستشفيات ;يعني كانوا اساتذاتنا دائماً وأبداً يقولوا أعملوا السيرة المرضية للمريض الفلاني . كنا طول النهار نعمل مقابلات مع المرضى وبنكتب، فهاي علمت الطبيب كيفية التواصل، كيف بتاخد المعلومة من المريض بنفس الوقت ، وكيف بتصيغها كتابياً"

[We were practicing in the hospitals from the second year of our medical education and above. Our professors always asked us to obtain the history of patients. I mean we spent the whole day dealing with patients and writing up. This enabled me as a doctor to communicate with the patient and write it down.]

To sum up, doctors expressed that the discipline of communication skills was not well taught as part of a classroom curriculum at medical schools (Alnasser et al., 2017). Doctors relied on past experiences with patients or observing senior doctors' treatments to enhance their communication skills with patients. It is a significant finding that doctors in Jordan are taught in English while they are practising in healthcare settings where the main language is Arabic.

This finding suggested that doctors' training may influence the quality of D-P communication (Kee et al., 2018; Montague, 2018; Zibande & Pamukoğlu, 2013). Indeed, communication skills training should be considered as an integral part of quality medical care and the training addressed to doctors in Jordan.

4.8 Summary

It is concluded from the analysis of our interview and observation data that verbal communication is important in the doctor-patient healing relationship and can help or hinder the patient in their quest to heal. The selected subthemes were lack of common language, lack of understanding, language and health literacy, and code-switching motivations.

Inappropriate communication rooted in lack of common language resulted from the use of medical English jargon by doctors in explaining medication and side effects, diagnosing and communicating with patients and the use of English between doctors in front of patients. Patients often cannot provide accurate information about their illnesses when they explain what they suffer from.

Lack of understanding among patients was identified as an obstacle by doctors as a result of a low level of education in making treatment decisions and understanding their treatment and medication.

Doctors experienced health literacy challenges and obstacles when attempting to engage and activate patients with low literacy who may not understand their health circumstances and the instructions that are needed for better health outcomes.

In this chapter, code-switching played two roles: filling a lexical gap, as well as for accommodation. Code-switching can be identified as filling a lexical gap when participants switch from Arabic to the English language due to the unavailability of a word or phrase in

their mother tongue, Jordanian Arabic, or for their easier accessibility or retrieval from memory. A unique function of code-switching was observed; the desire to converge and bring familiarity and creation to an informal setting in conversation.

Doctors cited religious and cultural factors which impacted the interaction with female patients which created a barrier to delivering safe care. Female patients were shown to prefer to be examined from same gender.

Chapter Five: Non-verbal communication in Doctor-Patient interaction

5.1 Introduction

This chapter effectively addresses the second research question in this study 'What are the non-verbal communication benefits and barriers in doctor-patient communication?' Non-verbal cues have been conceptualized as multidimensional in nature (Eaves & Leathers, 2018), and can occur simultaneously and in overlap during a conversation. They include those precise cues such as smiling, nodding and body posture (D'Agostino & Bylund, 2014) which match and demonstrate features of the verbal communication and often deliver messages and convey emotions that are unaffected by direct conscious analysis by the communicators (Friedman, 1979). Given that the focus of non-verbal communication occurs in a social interaction (between doctor and patient), in this study I use three dimensions to classify the different non-verbal cues examined. These three dimensions include: body language (Kinesics), use of voice (Paralinguistics), and communication through touch (Haptics) (Müller et al., 2014).

The videotaped consultations and interviews provided a rich data source on how general practitioners communicate non-verbally with patients when they do not share the same power and cultural background. The analysis of video data identified eight main themes: 5.2.1) Touch or not to touch, 5.2.2.1), Expansive body posture, 5.2.2.2) Dominant doctor's high-pitched voice, 5.2.2.3) Doctors interrupting patients, 5.3.1) Eye contact for communication enhancement, 5.3.2) Smiling as an accommodative strategy, 5.3.3) Hand kinesic cue for pain communication, and 5.3.4) Head nodding. All non-verbal behaviours were analysed using ELAN (see chapter three sections 3.4.3.1 & 3.4.3.2).

Doctors consider therapeutic touching as necessary for a proper medical examination. Medical professionals are competent in "clinical touch such as to palpate, poke, feel, or otherwise touch a patient for the purpose of diagnosis" (Vorpahl, 2018, p. 12). While physical examination has

made clinical touch accessible and legitimate to the doctor (Mitchum, 1989), it may have lower patient satisfaction scores (Larsen & Smith, 1981). The doctor's clinical touch of male-female gender may be considered a violation of their physical privacy. It has been observed that there is a high level of comfort and understanding between a female patient and a female doctor during medical examination (Bertakis, 2009). In Islam, non-verbal communication through touch is affected by cultural norms that should be maintained in the form of modesty and the use of touch-based in comforting patients particularly between cross-gender is not welcome nor appreciated (Rassool, 2014).

Analysis and interpretation of non-verbal interaction during medical encounters between doctors and patients was conducted using a detailed study of video data of doctor-patient encounters (see chapter 3 section 3.4.3). Many patients were very humble and cooperative while speaking to their doctors and used a lot of head-nodding, which highlights acknowledgment and cooperation rather than submission to doctors' expertise and medical treatments in Jordan. On the other hand, many doctors used their body orientation as a sign of cooperation throughout the medical consultation, which expressed power and reflected their intention to lead patients and increase their compliance to their advice and instructions.

Although this chapter sought to flesh out the explicit sources of miscommunications in D-P interaction when observing the consultations and medical interviews, there were indications of effective communication including eye contact for communication enhancement and smiling for accommodative purposes. Eye contact is a very effective signal in clinical communication and the cause of a satisfying interaction (Henry et al., 2012). In this study, doctors and patients maintained eye contact during all consultations.

5.2 Non-verbal communication barriers that cause ineffective D-P interaction

5.2.1 To touch or not to touch? Touch and gender

To explore the impact of therapeutic touch on patient perceptions, a thorough thematic video analysis was conducted and analysed using ELAN (ELAN 5.7 Windows**)**. As previously mentioned, participants were videotaped and their behaviours were coded using ELAN software to determine when touching occurred, and when it did not. However, during medical consultations, participants interacted differently to touch in both cross-gender and same-gender touch based on their sex, cultural and religious beliefs.

5.2.1.1 Cross-gender touch

In dealing with patients of the opposite gender, doctors seldom touched them clinically as observed by the researcher. In terms of clinical touch, proximity and posture, male doctors treated female patients differently, in an attempt to accommodate the patients' cultural and religious beliefs (see Fragment 5.1 & 5.2, and Figures 5.1 to 5.10 below). However, to ensure those female patients could have privacy and confidentiality during their treatment as a result of their involvement, much of the touching during examination was not available for camera recording.

It is found that the doctor's gender may impact patient care when examining cross-gender patients. There was less clinical touch performed by the doctors as a result of dealing with cross-gender, which was associated with greater satisfaction as in the Fragment 5.1 from the interview transcript shown below:

Fragment	Date source	Doctor: Hassan				Patient: Ms Ayat			
5.1	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	26	Muslim	B.A of Medicine	F	35	Muslim	Secondary

1a Dr Hassan: *Ɛx* _____ *Ɛx*
1b Dr Hassan: *L* ↑_____ *L* ↑
1 Dr Hassan: صار فيها التواء او ضرب مباشر؟
[Did you experience a sprain in your wrist or direct hit?]
2a Ms Ayat: *Ɛ→* _____ *Ɛ→*
2b Ms Ayat: *Ɛx* —*Ɛx*
2 Ms Ayat: ….لا. أنا هيك زحلقت و إجت ايدي بالزاوية هيك
[*No. I slipped off, and my hand turned to the corner….]*
3 Dr Hassan*:* {Moving his right hand from his back to the front and back again (see Figures 5.2 to 5.7)}
4 a Ms Ayat: 👇 _____ 👇
4 Ms Ayat: فلما إجت هيك ، هذا كله انقلب أزرق و صار الصبح خذلان فيها
[This turned to blue with numbness in the morning.]
5a Dr Hassan: *Ɛx*_____ *Ɛx*
5 Dr Hassan: في الحركة مشكلة؟
[Do you have any trouble with movement in your hand?]
6a Ms Ayat: : *Ɛ→*_____*Ɛ→*
6 Ms Ayat: لا. بس حاسة فيها خذلان
[No. I have only a feeling of numbness in my hand.]

Notational symbol	Meaning
L ↑	Speaker leans forward while talking
Ɛ x	Indicates that the speaker gazes to an object (e.g. to a body organ)
Ɛ→	Speaker is gazing towards the other party
👇	Down pointing backhand index

Dr Hassan's position in leaning forward (line 1b) conveys an interest and involvement in his interaction with the patient (Roberts & Bucksey, 2007). He visually examined Ms Ayat's hand without using his hand and uses questions (Line 5) to get information as part of the diagnosis. Doctors normally use their hands to move the patient's hand and ask whether the movement causes pain or not, but not in this case.

In Figure 5.1, while Dr Hassan simultaneously communicates with the female patient Ms Ayat in different modes (such as suitable physical distance and direct gaze), he is certainly also avoiding the mode of clinical touch with the patient. When analysing doctor's kinesic cues and posture, we gain much insight into the avoidance of clinical touch.

Figure 5.1

Dr Hassan is clasping hands behind his back while examining the patient

Although Dr Hassan expressed his desire for immediacy (see Section 2.2.2.2) by exhibiting his interest in listening to Ms Ayat's complaint by leaning forward and maintaining eye contact, he did not touch Ms Ayat even for examination. Unconsciously, his hand kinesic cue in Figures 5.2, 5.3 & 5.4 show his desire to examine her with clinical touch, but he avoided it (see Figure 5.5, 5.6 & 5.7).

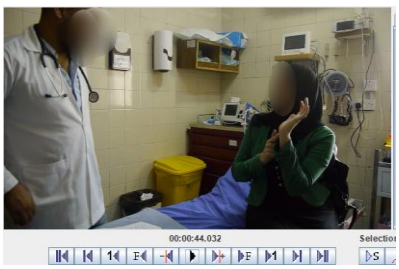
Figure 5.2

Dr Hassan starts to move his right hand from his back to the front

Figure 5.3

Dr Hassan is moving his right hand from his back to the front

Figure 5.4

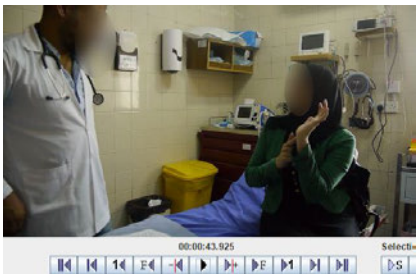


Dr Hassan is moving his right hand from his back to the front

To avoid clinical touch associated with ambiguous interpretation, Dr Hassan assumed that Ms Ayat does not want to be touched by a male who is not a family member, even as part of a medical examination. Fragment 5.1 reveals how the female patient presents pain to the doctor via verbal communication (lines 2,4 & 6) and non-verbal behaviours including pointing and

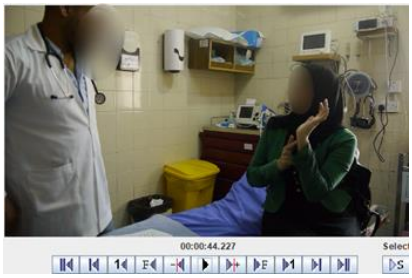
gazing to the source of pain (lines 2a,2b, 4a & 6a). The doctor does not touch the patient's hand. Rather, he asks her specific questions (lines 1 & 5) whilst maintaining eye contact to avoid directly touching her hand.

Figure 5.5



Dr Hassan starts to return his right hand to his back

Figure 5.6



Dr Hassan returns his right hand to his back

Figure 5.7

Dr Hassan returns his right hand to his back

Ms Ayat expressed her reluctance to be clinically touched by a male doctor and her preference to be consulted by a female doctor. She said:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
5.2	Interview	Ms Ayat	F	35	Secondary	Muslim

" بدك الصراحة لانك بترتاحي للست أكثر من الشاب. في شغلات بتسفسري عنها من الدكتورة و بتنحرجي من الدكتور".

[To speak frankly, I feel more comfortable with a female doctor, not male. There are things you would like to ask a female doctor about them since you feel embarrassed by a male doctor.]

Ms Ayat assumed that she would be more reluctant to share or disclose sensitive health issues with a male doctor than with a female doctor because she feels embarrassed. Thus, the non-existence of a female doctor could be a barrier in care-seeking (Rassool, 2014; Tackett et al., 2018).

Similarly, as in the situation below, the differences in gender complicate the use of no-touch with patients. In order to accomplish certain therapeutic tasks, male doctors sometimes face difficulties in providing care that requires physical closeness and clinical touch because of the

social conventions in relation to male and female interactions in Jordan as shown in the following Fragment 5.3:

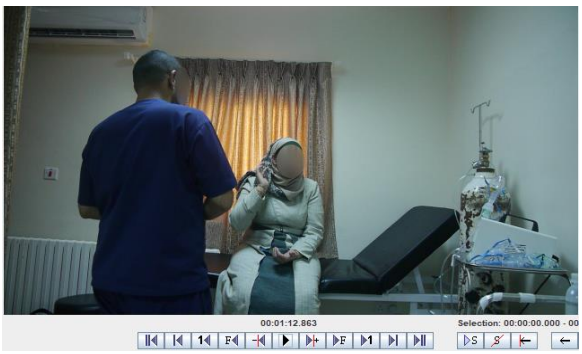
Fragment	Date source	Doctor: Nabeel				Patient: Ms Rana			
5.3	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	28	Muslim	B.A of Medicine	F	27	Muslim	Secondary

1a Dr Nabeel: ↻→ _____ ↻→
1 Dr Nabeel: غير الأعراض هذي، في شيء عندك؟ {Carrying the Otoscope to examine Ms Rana.}
[Do you have any symptoms?]
2a Ms Rana: 👉_____👉 {Pointing to her throat.}
Ms Rana: بحس في هذي اليومين صعوبة في البلع من هون
[For the past two days, I have had difficulty in swallowing.]
3a Dr Nabeel: L↑ _____ L↑
3 Dr Nabeel: بس اليمنى فيها مشكلة؟ {Walking towards Ms Rana to examine her right ear}
[Only right ear affected?]
4 Ms Rana: آه {Showing Dr Nabeel her right ear.}
[Yes]
5 Dr Nabeel: الثانية{Waiting Ms Rana to show him her left ear.}
[The left ear please.]
6 Ms Rana: {Showing Dr Nabeel her left ear.}

Notational symbol	Meaning
L ↑	Speaker leans forward while talking
👉	Right pointing backhand index

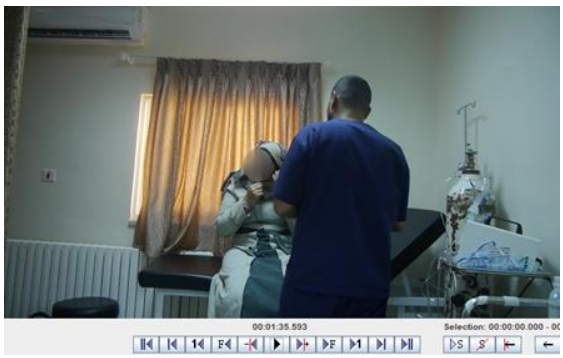
Dr Nabeel was observing and maintaining the social and cultural norms with Ms Rana because in Islam it is inappropriate socio-culturally to communicate through touch with cross-genders, particularly for modesty and health purposes (Rassool, 2014). During the medical examination, Ms Rana, who was wearing a veil, responded to Dr Nabeel's body orientation (line 3) when he walked towards her and leant over to examine her ears (line 3a) using the 'otoscope'. She did this by showing him her right ear (see Figure 5.8), then her left ear (line 6) (see Figure 5.9) upon understanding his body orientation (line 3a).

Figure 5.8



Ms Rana is showing her right ear from under the veil

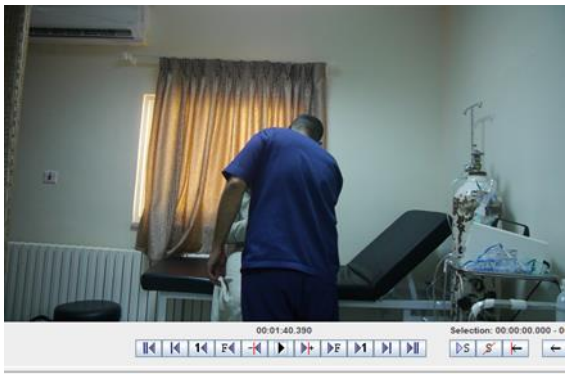
Figure 5.9



Ms Rana is showing her left ear from under the veil

In Figure 5.10 below, Dr Nabeel kept his left hand beside his body while looking through the 'otoscope' in Ms Rana's ear, he leaned towards her without touching her also taking care not to touch her ear. It was clear that it would be much easier for Dr Nabeel to use his left hand to hold the patient's ear and examine it.

Figure 5.10



Dr Nabeel is examining Ms Rana's ears without clinical touch

A female patient may be uncomfortable and may feel threatened if clinically touched by a male doctor. Nevertheless, patients may be less likely to feel defensive and threatened when clinical touch is initiated by a doctor from the same-gender as opposed to touch from a cross-gender

doctor. In saying this, male doctors tend to use less task-related clinical touch with female patients (Andersen et al., 1987; Street Jr. & Buller, 1988). Because of the fear of misinterpretation of touch, doctors avoid unnecessary clinical touching and keep an appropriate physical distance with female patients.

As shown in the scenario above 5.3 Dr. Hassan demonstrated cultural self-awareness that can be understood by his observance to the cultural and religious beliefs of patients by avoiding cross- gender touch. When avoiding misinterpretation by means of clinical touch in the physical exam, Dr Hassan states:

"أنا بالعادة بظل بعيد لما أخد History لكن عند الفحص السريري لا، لكن هون حذرين مع المريضات بنجيب الممرضة لحتى توقف معنا".

[I am usually far away when I get the history from the patient, but during the clinical examination, no. Here, we are careful with females. Clinical examination only occurs in the presence of a nurse.]

Dr Hassan is aware that gender could be a factor in the female patients' perception and the Jordanian community when it comes to clinically touching cross-gender in a way consistent with the norms of the cultures involved. It is important to consider that cultural and religious factors influence gender differences in non-verbal health interaction (see chapter 6 section 6.2). In order for doctors to achieve cultural competence and deliver high-quality care to Muslim patients, who are culturally sensitive, an understanding of the ramifications of the Islamic faith and Islamic beliefs is essential when dealing with cross-gender patients in terms of touch (Rassool, 2014). In the United States, because touching members of the opposite-gender is often perceived as sexual, therapists tend to avoid touching to minimize misinterpretation (Zur & Nordmarken, 2011). Similarly, both cross-gender, non-clinical and clinical touch in Muslim interaction is perceived as less legitimate and more sexual unless on the condition that a female nurse is present, preferably a female (Tackett et al., 2018), as Dr Hassan stated above (Fragment 5.4). This is an example of divergence perceived in an avoidance of clinical touch as non-

verbal behaviour with patients. Doctors are careful to diverge themselves in order to avoid conflict and misinterpretations with patients and take care when to diverge using strategies that best fit the particular patient-doctor relationship (Ahmed & Bates, 2016). This divergence, one of the principles of CAT, was displaced during the medical encounter in terms of divergent non-verbal behaviours (Farzadnia & Giles, 2015; Giles, 2008), including tense (as opposed to relaxed) body posture or an avoidable clinical touch, even a therapeutic one.

5.2.1.2 Same-gender touch

Touch is a powerful tool when communicating positive emotions. Hall (1966) suggested that people in northern Europe, the United States, and the Far East engage in touching less frequently (as cited in Martin & Nakayama, 2010), whereas in Arabic and Islamic cultures, touch is frequently accepted. The same applies in Muslim, clinical interaction where touching members of the same-gender feels comfortable for both patients and doctors in the Jordanian culture during the examination, as shown below Figure 5.11, 5.12& 5.13.

Figure 5.11

Dr Adel is gathering information while touching Mr Saed's hands

Figure 5.12

Dr Adel is using touch when examining Mr Saed's ears

Figure 5.13

Dr Adel is using touch when examining Mr Saed's chest

In Figure 5.11 and 5.12, Dr Adel seemed more relaxed and comfortable whilst examining Mr Saed's ears and chest respectively with his hands. In fragment 5.5, Dr Adel examined and touched Mr Saed clinically without verbal orientation.

Fragment	Date source	Doctor: Adel				Patient: Mr Saed			
5.5 Continued from 5.22	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	32	Muslim	B.A of Medicine	M	78	Muslim	Primary

11 Dr Adel: جديد السكري عندك؟
[Is your diabetes new?]
12 Mr Saed: لا والله
[No, I swear]
13 Dr Adel: {Examining Mr Saed's left ear.}
14 Mr Saed: أذاني بعض الأحيان ما بسمع منهمن منيح {Examining Mr Saed's right ear.}
[Sometimes I cannot hear well.]

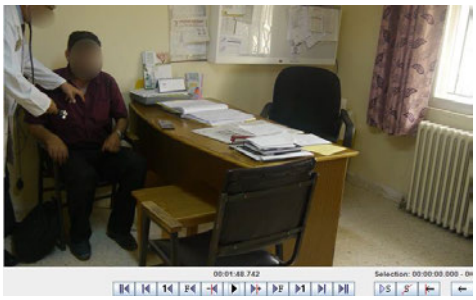
At the beginning of Fragment 5.5, Mr Saed was facing Dr Adel and was ready for examination. Dr Adel then gazed at Mr Saed's face and listened to his story. Mr Saed, unprompted by Dr Adel, began to turn his face showing his left and right ears respectively. As he began to turn his face, Dr Adel took a closer look at the source of the complaint. Upon looking at the ears, Dr Adel asked, "جديد السكري عندك؟" *[Is your diabetes new?]* (line 11), Mr Saed replied: "لا والله" *[No, I swear.]* (line 12) and continued describing the problem (line 14). Swearing statements using the religious expressions "*I swear*" or "*wallahi*" and other popular oath expressions in Jordanian culture are a reflection of the impact Islamic attitudes have on the Arabic culture (Al-Khawaldeh, 2018). It is considered a way to make an affirmation in reference to Islamic religion, and therefore, it is a trustworthy expression (Al-Issa, 2003). In turning his face, Mr Saed invited Dr Adel temporarily to examine his ears without verbal orientations.

However, touch is an excellent tool for creating rapport, strengthening the relationship and cooperation, particularly with elderly patients (Gabbard-Alley, 1995) as is apparent in Figure 5.11. As Mr Saed sat on the bed and was ready to reply, Dr Adel began to social touch his hands and started making notes of his name, his age and his real complaint. It is important to note that Dr Adel's use of social touch was positively associated with rapport (Elliott et al., 2016; Remland, 2017) and was an encouragement to comply (Eaton et al., 1987; Wang, 2010), which may have been associated with patient satisfaction and gender (Duggan & Parrott, 2001).

According to CAT, this accommodation behaviour by convergent non-verbal touch is indicative of the desire to build rapport, warmth and strengthening of the doctor-patient relationship (Giles, 2008).

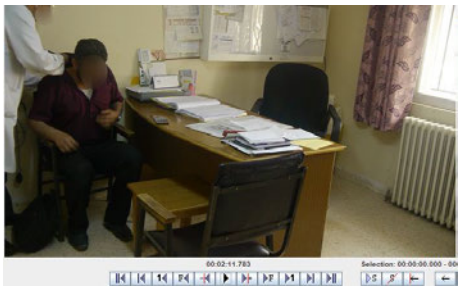
It seems that the majority of male patients are diagnosed using clinical touch by their male doctors and same applied to female patients and female doctors, regardless of whether it was clinical or non-clinical touch. This also occurred in the following medical interview as seen in Fragment 5.6 between Dr Shadi and Mr Muneer:

Figure 5.14



Dr Shadi is removing Mr Muneer's shirt from the upper part of his chest

Figure 5.15



Dr Shadi is listening to Mr Muneer's lungs from his back

Fragment	Date source	Doctor: Shadi				Patient: Mr Muneer			
5.6	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	65	Muslim	B.A of Medicine	M	41	Muslim	B. A

1 Dr Shadi: .. خلينا نفحص صدرك أخ {Standing and turning to examine Mr Muneer.}
[Let me examine your lungs, Mr Muneer.]
2 Mr Muneer: {Coughs before Dr Shadi starts to remove Mr Muneer's shirt from upper part of his chest.}
3 Dr Shadi: .. خذ نفس أخ منير {Starts examining Mr Muneer's lungs through the stethoscope.}
[Take a deep breath, Mr Muneer.]
4 Mr Muneer: {Taking a deep breath.}
5 Dr Shadi: خرجه من ثمك
[Breathe out.]
6 Mr Muneer: {Breathing out}
7 Dr Shadi: خذ نفس {Listening to Mr Muneer's lungs from the back through the stethoscope.}

[Take a breath, please!]

8 Mr Muneer: {Taking a deep breath.}

Similar to the earlier example with the patient Mr Saed (Fragment 5.5), the physical examination preceded by Dr Shadi asking for Mr Muneer's permission to examine his lungs. It is assumed that approval is granted because it does not threaten the same gender interaction. In Figure 5.14, Mr Muneer was ready for the physical examination by showing his desire to be examined which enabled Dr Shadi to lift his shirt from the upper part of his chest and insert the stethoscope in order to listen to sounds in his lungs. In this instance, Dr Shadi asked Mr Muneer in (line 3) to take a deep breath and breathe out (line 5). After Dr Shadi finished examining Mr Muneer's lungs, he turned to examine his lungs from his back (see Figure 5.15) without giving him any verbal indication that he was going to do so, just instructing him to take another deep breath (line 7).

Analyses have revealed that participants responded to clinical touch based on the gendered dynamic of the interaction (Cocksedge et al., 2013; Galanti, 2014; Joshi et al., 2010; Marcinowicz et al., 2010; Rocque & Leanza, 2015; Tackett et al., 2018). This is not consistent with other study findings which revealed that participant gender did not influence touch in interaction (Vorpahl, 2018; Weinberger et al., 1981). It is possible that the gender of a participant could have impacted their perceptions of the medical encounter. Although this study did not examine significant relationships between clinical touch and patient perceptions, it provides an opportunity for researchers to investigate these perceptions differently in terms of clinical touch and social touch in the future.

5.2.2 Power Distance

Another theme that emerged from the health communication between doctors and patients is power distance in medical encounters. According to Hofstede and Bond (1988), power distance is the extent to which a culture believes and accepts unequal power in institutions and

organisations. There is a desired impression that doctors wish patients to respect them. For example, in high power distance cultures, doctors may view themselves as leaders on patient health barriers, instead of valuing themselves as being equal and cooperative (Lawton et al., 2015). Obviously, patients in the medical consultations are in a powerless position since doctors have more medical expertise about the patients' complaint, increasing their power in terms of their status and interpersonal roles. Doctors can use kinesic cues or distance themselves from patients to display control and knowledge.

Listening and watching medical consultations allowed me to examine this barrier within its context. Apparently, the language, education and cultural differences among participants, including body posture, pitch of voice, and other kinesic cues impact D-P interaction.

5.2.2.1 Expansive body posture

Body language can imply a point of conflict in medical consultation. Therefore, it is expected that doctors display good body language skills that reflect they are interested in and paying attention to patients in order to increase their satisfaction and greater comprehension of treatment instructions. Accordingly, doctors' body posture can be a strong indicator of power (Eaves & Leathers, 2018; Müller et al., 2014) and can reflect the temporary nature of their engagement with the patients which could cause them to withhold important information and lead to non-involvement in their interaction.

With regard to body posture, analysis of videotape data indicated that the majority of doctors used their body orientation quite extensively throughout the medical consultation. Generally, doctors adopted a relaxed position and straightening of the torso during their interaction with patients as opposed to constricted postures of patients. The Fragment 5.17 shown below demonstrates this aspect of D-P non-verbal interaction:

Figure 5.16

Dr Sabri straightened his torso and oriented towards Mr Ahmad

Figure 5.17

Dr Sabri held his arms behind his back

Figure 5.18

Dr Sabri keeps holding his arms behind his back

Figure 5.19

Dr Sabri keeps holding his arms behind his back

1a :Dr Sabri: ¥_____¥

1 Dr Sabri: طيب. سيدي العزيز الإسم الكريم إيش؟
[All right. What is your name?]

2 Mr Ahmad: إسمي أحمد
[My name is Ahmad.]

3a Dr Sabri: ¥_____¥

3 Dr Sabri: من وين؟
[From where?]

4 Mr Ahmad: من إربد
[*I'm from Irbid.*]

5a Dr Sabri: ¥ _____ ¥

5 Dr Sabri: من وين بالضبط؟
[From where exactly?]

6 Mr Ahmad: من جتيتة
[*From Jtaita.*]

7a Dr Sabri: ¥ _____ ¥

7 Dr Sabri: لأنه أنا برضو من جتيتة
[Because I'm from Jtaita, too.]

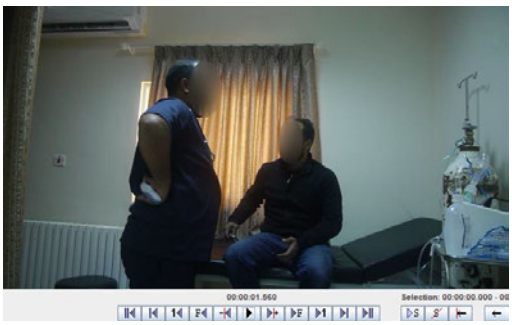
8a Mr Ahmad: ☺————☺
8 Mr Ahmad: والله! أهلا و سهلا يا سيدي
[Really! You are welcome, dear!]

Notational symbol	Meaning
☺	Indicates the speaker is smiling while speaking
¥	Indicates the speaker is bending/straightening the torso

As the patient Mr Ahmad was sitting on the bed, doctor Sabri entered the room and initiated the dialogue asking Mr Ahmed "طيب. سيدي العزيز الإسم الكريم إيش؟" (line 1) [*All right. Dear, what is your name?*]. His gaze and body orientation were convergently organised and oriented toward Mr Ahmad respectively (See Figure 5.16). In this Figure 5.16 Dr Sabri also folded his arms which indicates an engagement (Norris, 2004). In the next few seconds, Dr Sabri maintained his gaze but slightly adjusted his body posture by holding his arms and placing them on his back (See Figure 5.17, 5.18 & 5.19) as he was communicated in lines 1, 3, 5 and 7. His back was actually touching the wall. Apparently, Dr Sabri was relaxed and appeared confident during the consultation. Although he maintained eye contact with Mr Ahmad to encourage him to give all necessary information, his non-verbal postural message may unintentionally influence his interaction with Mr Ahmad, who might feel in a position of powerlessness.

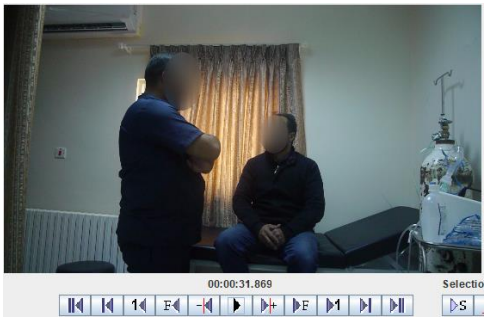
In the situation below, postural shifts by Dr Ali a 28-year-old male had been taken in two snapshots (See Figures 5.20 & 5.21) as he changed to another posture. To illustrate the movement, Dr Ali appeared relaxed in terms of expansive postural positions. He was standing during the medical interview with Mr Tamer a 34-year-old male patient.

Figure 5.20



Dr Ali straightened his torso while standing and put his left hand on the bed and his right arm akimbo

Figure 5.21



Dr Ali maintained a fixed posture

In Figure 5.20, Dr Ali was standing and put his left hand on the bed and right hand on his trunk. In the first opening Fragment 5.8, he questioned the patient about his chief complaint (line 1) while he gazed away from Mr Tamer. The patient described his complaint in (line 2) while maintaining eye contact (line 2a) with Dr Ali.

Fragment	Date source	Doctor: Ali				Patient: Mr Tamer			
5.8	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	28	Muslim	B.A of Medicine	M	34	Muslim	Secondary

1a Dr Ali: ☪ ——————— ☪ *x*

1b Dr Ali: ¥ ——————— ¥

1 Dr Ali: اتفضل! شو شكوتك بالضبط؟ {He is standing and putting his left hand on the bed and right hand on his trunk, shifting his eyes towards the wall.}

[*Please, what exactly your complaint?*]

2a Mr Tamer: ☪→ ——————— ☪→

2b Mr Tamer: /\ ——————— /\

2c Mr Tamer: 👉 ——————— 👉

2 Mr Tamer:جيت قبل يومين على الدكتور اللي كان موجود ، بعد آخر مطرة ، صار عندي حكة بالأذان

[*I came here before two days to the doctor who was here. After the recent raining falls, I complained from an itch in my ears…*]

3 a Dr Ali: ¥ ——————— ¥

3 Dr Ali: طيب ماشي،أعطاك أدوية؟

[*Right! Did he give you drugs*?]

4a Mr Tamer: ☪→ ——————— ☪→

4 Mr Tamer: أعطاني أدوية تحسس و ريفانيين العادي

[*He gave me drugs for Bronchitis and Revanin tablets.*]

Notational symbol	Meaning
/ \	Symbolises the upward and downward nodding of the head, respectively
¥	Indicates the speaker is bending/straightening the torso
☞	Right pointing backhand index
C→	Speaker is gazing towards the other party
C *x*	Indicates that the speaker gazes to an object (e.g. to a body organ)

Dr Ali, in line 1a, first shifted his gaze to the wall while his body remained oriented towards the wall (line 1b). As Mr Tamer explained his complaint (line 2), Dr Ali maintained a fixed posture (line 3a). It could be inferred from this that that Dr Ali's shift of gaze and his posture towards the wall may indicate disengagement. Mr Tamer's eye contact (lines 2a & 4a) and listening behaviour, on the other hand, are of great importance in this interaction and convey a genuine interest in his story (Brennan, 2016), which was frequently noted throughout the transcript.

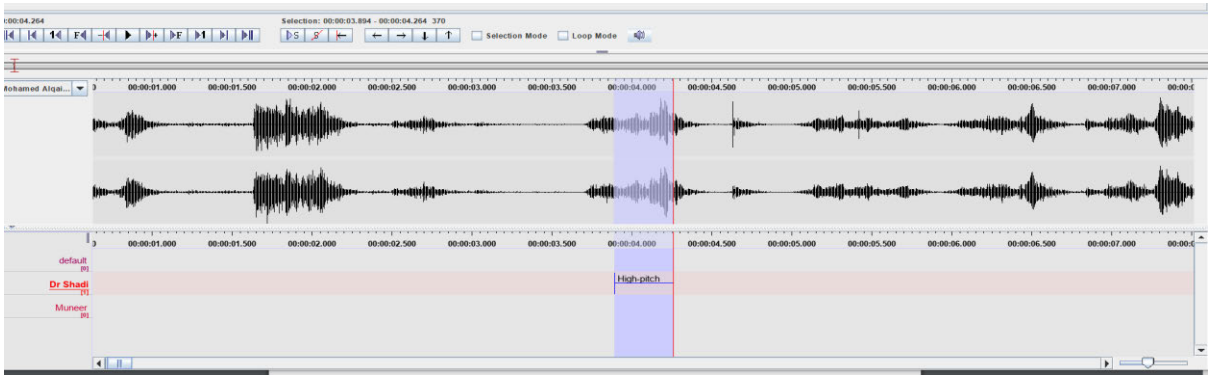
Analysis of these medical interviews shows that a relaxed posture while standing indicates higher ratings of power (Eaves & Leathers, 2018). This relaxation in posture and body has been found to relate primarily to status differences (Mehrabian, 1972) between the doctors and patients.

5.2.2.2 Dominant doctor's high-pitched voice

It has been argued that a person's voice strongly affects the impression that a person makes for himself/herself and allows to differentiate one from another and strongly affect specific kinds of personality characteristics (Eaves & Leathers, 2018). The videotaped consultations showed doctors displaying a more dominant high-pitched voice. This wave length below (Figure 5.1) from ELAN shows the rise and fall in volume and pitch in Dr Shadi's voice (see also Chapter 3 section 3.4.3.3).

Figure 5.1

Transcript: Pitch Level From ELAN



An example is provided here for illustration:

Fragment	Date source	Doctor: Shadi				Patient: Mr Muneer			
5.9	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	65	Muslim	B.A of Medicine	M	41	Muslim	B. A

1 Mr Muneer: يعطيك العافية دكتور
[*May God Give you wellness, doctor!*]
2a Dr Shadi: ↑ ↑
2 Dr Shadi: أخ منير
[*Brother Muneer.*]

3 Mr Muneer: نعم
[Yes, it is]
4 Dr Shadi: أهلا و سهلا
[*You're welcome!*]
5 Mr Muneer: يا هلا فيك
[*You're welcome, too!*]
6a Dr Shadi: ↑ ↑
6 Dr Shadi: سلامتك؟
[*What is wrong with you?*]
7 Mr Muneer: الله يسلمك
[God bless you!]
8a Dr Shadi: ↑ ↑
8 Dr Shadi: خير يا أخ منير
[*What is wrong with you, brother Muneer?*]

Notational symbol	Meaning
↑	The up-arrow marks sharp rises in pitch or tone of voice

In Fragment 5.9, the male patient, Mr Muneer was very humble as he used certain verbal expressions such as initiating the dialogue with the Arabic traditional welcoming expression "يعطيك العافية دكتور" (line 1) [*May God Gives you wellness, doctor!*]. On the other hand, Dr Shadi's paralinguistic cues conveyed dominance through high-pitched voice while he was collecting demographic information about Mr Muneer's name. He uttered Mr Muneer's full name 'أخ منير' (line 2) [*Brother Muneer*] with a louder voice or high pitch tone (line 2a). Mr Muneer responded with a natural voice and answered "نعم" (line 3) *[Yes, it is]*. Dr Shadi continued his intention in expressing power and dominance through high-pitched voice (line 6a), but this time asking about the reason behind Mr Muneer's visit "سلامتك؟" (line 6) [*What is wrong with you?*]. It seemed that Mr Muneer did not understand the question and replied with a polite answer "الله يسلمك" (line 7) *[God bless you!]*. However, this response by Mr Muneer led Dr Shadi to ask the question again in a different way but with a high-pitch voice still (line 8a) "خير يا أخ منير" (line 8) *[What is wrong with you brother?]*.

After examining Mr Muneer's chest and lungs, Dr Shadi diagnosed Mr Muneer with bronchitis, and the following continued Fragment 5.10 from the consultation conveyed a dominant high-pitched voice as follows:

Fragment	Date source	Doctor: Shadi				Patient: Mr Muneer			
5.10 Continued from Fragment 5.11	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	65	Muslim	B.A of Medicine	M	41	Muslim	B. A

18 Dr Shadi: بدخن؟
[*Do you smoke?*]

19 Mr Muneer: اه بدخن. بس الفترة هي بخفف
[*Yes, I smoke, but I decrease smoking this period.*]

20 Dr Shadi: و أرجيله؟
[And also, narghile[3]?]

[3] Narghile /ˈnɑːgɪleɪ/ is an oriental tobacco pipe with a long tube that draws the smoke through water; a hookah. Retrieved from: https://www.lexico.com/definition/narghile.

21 Mr Muneer: و أرجيله بأرقل كمان
[And I also smoke Narghile, too.]
22 Dr Shadi: و في البيت في شجر و الا مافي؟
[Do you have trees at home? Or not?]
23 Mr Muneer: لا، مافي
[No, there is not.]
24 Dr Muneer: كل الأعراض اللي بتحكي عنها و من كحتك هاي حاليا بتدل على إنه في عندك تحسس و تهيج شديد في قصباتك الهوائيه. يعني انت عندك أصلا حساسية ظهرت اليومين هذول.... ، بدنا نعطيك علاج تصرفه من الصيدليه و ترجع عشان أعلمك عليه
[All of the symptoms you told me about and from your current cough reveals that you have severe bronchitis. It means originally that you had allergic rhinitis appeared these couple of days. I will give you a medicine to get from the pharmacy, and you should return to me to teach you how to take it.]
25a Mr Muneer: / \ ___ / \
25 Mr Muneer: إن شاء الله
[If God willing.]
26 Dr Shadi: اللي هن موسعات لصدرك ؛ اللي هن موسعات للقصبات؛ اللي هن البخاخ
[It is bronchodilator therapy which is a nasal spray*.]*
27a Mr Muneer: / \ ___ / \
27 Mr Muneer: إن شاء الله
[If God willing.]
28a Dr Shadi: ↑_____↑
28 Dr Shadi: إن شاء الله
[If God willing.]
29a Mr Muneer: / \ ___ / \
29 Mr Muneer: إن شاء الله
[If God willing.]

Notational symbol	Meaning
/ \	Symbolise the upward and downward nodding of the head, respectively
↑	The up-arrow marks sharp rises in pitch or tone of voice

After Mr Muneer revealed that he was a smoker and because he was ill, he had to decrease smoking (line 19). Dr Shadi appeared dissatisfied with his smoking behaviour and expressed that all of the symptoms he suffered from as a result of the severe bronchitis affected his body (line 24). He advised him to obtain the medicine from the pharmacy and return to him. Mr Muneer after hearing this unexpected diagnose had to reply "إن شاء الله" (line 25) *[If God willing.]* as he head-nodded (line 25a), showing an agreement on the prescribed medicine. To

make sure that Mr Muneer understood the prescribed medicine, Dr Shadi explained more about this medicine and named it "اللي هن موسعات لصدرك ؛ اللي هن موسعات للقصبات؛ اللي هن البخاخ" (line 26) *[It is bronchodilator therapy which is a nasal* spray.*]* Mr Muneer again had to reply and agree "إن شاء الله" (line 27) *[If God willing.]* with head-nodding (line 27a) to acknowledge his understanding of Dr Shadi' explanation of the medicine. However, it seemed that Mr Muneer' first reply "إن شاء الله" (line 27) *[If God willing.]* was not sufficient and led Dr Shadi to ask for Mr Muneer's confirmation of his understanding by asking "إن شاء الله" (line 28) *[If God willing.]* in a high-pitched voice (line 28a). Mr Muneer nodded his head (line 29a) and confirmed to Dr Shadi that he understood what he had said by replying: "إن شاء الله" (line 29) *[If God willing.]* It is possible that Dr Shadi intended to dominate and control the interaction by putting pressure on Mr Muneer to obey and follow his instructions since Mr Muneer showed carelessness regarding his health by smoking narghile although he was ill.

In the Fragment above, the participants' use of the religious expressions "إن شاء الله" /in shā' allāh/ *[If God willing.]* is taken for granted as a fact that is not negotiable in the Jordanian community. It means that the speaker is trying to give a positive reply to a yes/no question meaning to say 'OK' and make an invocation to Allah [God] enabling him to achieve what he desires (Mehawesh & Jaradat, 2015, p. 325).

It has been shown that some doctors display greater dominance and speak with greater pitch (Kiese-Himmel et al., 2012; Mast & Cousin, 2013; Remland, 2017; Ruben, 2014). However, in this study, the pitch of voice was not examined in terms of doctors' gender and patients' perception of doctors' high pitch of voice.

5.2.2.3 Doctors interrupting patients

Interruption of others is tolerable in many cultures, but not in the Jordanian culture which could cause a person to lose face, thus affecting or ruining his/her relationship with others. Doctors

who interrupt patients are likely to be perceived as dominant (Eaves & Leathers, 2018; Rhoades et al., 2001). In this study, numerous interruptions, are non-verbal indicators of power, status, and dominance, emerged from the observation data. The researcher noticed that doctors tended to interrupt patients during the medical consultations. Doctors tended to frequently interrupt patients before they finished speaking in order to dominate the conversation, time, and exert their power in the interaction. This may also be because some patients use story-telling talk which is time-consuming and doctors are busy. The following fragments serve to exemplify the use of interruptions emerging from the observed medical consultations.

Fragment	Date source	Doctor: Shadi				Patient: Mr Muneer			
5.11 Continued from Fragment 5.9	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	65	Muslim	B.A of Medicine	M	41	Muslim	B.A

8 Dr Shadi: خير يا أخ منير
[What is wrong with you, brother Muneer?]

9 Mr Muneer: دكتور من الأربعاء مش الماضي اللي قبلها
[Doctor! Since last day…]

10a Dr Shadi: / \—— / \

10 نعم
[Yes]

11 Muneer: من حوالي ١١ أو ١٢ يوم
[Since 11 or 12 days,..]

12a Dr Shadi: / \—— / \

12 نعم
[Yes]

13 Mr Muneer: صابتني انفلونزا ظلت معي لمدة اربعة ايام
[I got a flu and it lasted for four or five days ago.]

14a Dr Shadi: ! ! _____! !

14 Dr Shadi: لفحة هواء وكنت عرقان
[Muscle Spasm! And you were sweating.]

15 Mr Muneer: نعم و أصابني سيلان شديد في االفترة هذي خميس و جمعة و سبت. والأحد بلش يخف السيلان مع كحة قوية، و ظلت لغاية ...
[Yes, I got runny nose last Thursday, Friday, and Saturday. However, I got severe cough on Sunday, and it affected me till ….]

16a Dr Shadi: ! ! _____! !

16 Dr Shadi: و الكحة ليل و نهار أو في أوقات أكثر
[Does the cough get worse during night and day? Or does it occur at certain times?]

17 Mr Muneer: ليل و نهار، بس بالليل أكثر
[Yes, it affects me night and during the day but more at night.]

Notational symbol	Meaning
! !	Indicates the speaker is interrupting.
/ \	Symbolize the upward and downward nodding of the head, respectively

In the above example, Dr Shadi was gathering medical history from Mr Muneer. Mr Muneer answered the question 'خير يا أخ' (Line 8) [*What is wrong with you, brother Muneer?*], and started talking about how he got the flu (Lines 9 & 11). Dr Shadi acknowledged and nodded his head twice (lines 10a &12a) by saying 'نعم' (Lines 10 &12) to indicate he is listening to the details and request for information. Mr Muneer continued to narrate his story (Line 13) when Dr Shadi interrupted him (Line 14a) and said; 'لفحة هواء وكنت عرقان' (Line 14) *[Muscle Spasm! And you were sweating.]* Mr Muneer continued explaining his health condition when Dr Shadi interrupted him again in Line (16a) and said 'و الكحة ليل و نهار أو في أوقات أكثر' (line 16) [*Does the cough get worse during night and day? Or does it occur at certain times?*] even before the patient finished telling him what had happened. On the other hand, these interruptions by Dr Shadi in lines (14a & 16a) served the purpose of acknowledging what Mr Muneer had said as well as understanding his message, hence also demonstrating Dr Shadi's medical expertise through diagnosis of patient symptoms (e.g., sweating) and using relevant medical terms (e.g., Muscle Spasm).

Another instance of the dominant role of doctors in the medical interview is in the following consultation. D'Agostino and Bylund (2014) reported that doctors have been shown to interrupt patients more than patients interrupt doctors. This similarity appeared to occur in all the medical consultations. Interruptions were initiated almost exclusively by doctors, and can be seen in this dialogue taken from the consultation between Dr Nabeel and Ms Areen:

Fragment	Date source	Doctor: Nabeel				Patient: Ms Areen			
5.12	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	28	Muslim	B.A of Medicine	F	40	Muslim	Diploma

1a Dr Nabeel: *Є x*__________*Є x*

1 Dr Nabeel: ممتازة حرارتك! {Looking at the medical thermometer.}
[Your temperature is good.]

2 Ms Areen: بس دكتور بالنسبة للعلاجات، أنا ما بحب أوخذ علاجات
[Doctor! I do not like to take drugs.]

3a Dr Nabeel: ! ! ____ ! !

3 Dr Nabeel: مشان ..
[For ..]

4 Ms Areen: بس بوخذ بين فترة و فترة إبرة للتحسس و قطرة عينية يعني…
[I take an injection for bronchitis and eye drops from time to time. So,..]

5a Dr Nabeel: ! ! ____ ! !

5 Dr Nabeel: ممتاز! بس مارح يساعدوك بشكل نهائي. في عنا مضادات للتحسس بتساعدك ..
[Perfect! But they would not help you permanently. I suggest to take antibiotics for the allergy.]

Notational symbol	Meaning
! !	Indicates the speaker is interrupting
Є x	Indicates the speaker gazes to an object (e.g., to a body organ)

After Dr Nabeel measures Ms Areen' temperature, the patient replies ' بس دكتور بالنسبة للعلاجات، أنا ما بحب أوخذ علاجات' (line 2) *[Doctor! I do not like to take drugs.]*, hence expressing that she does not like taking drugs and prefers to engage in various herbal medications before consulting a doctor (see Fragment 6.49). Dr Nabeel interrupted her (line 3a) and said ' مشان..' *[For..]* in an attempt to convince her, but Ms Areen continued her argument that although she does not prefer to engage in herbal medications, she might take certain types of these medications from time to time (line 4). Dr Nabeel interrupted her again (line 5a) and did not give her time and space to express her thoughts by saying ' ممتاز! بس مارح يساعدوك بشكل نهائي. في عنا مضادات للتحسس بتساعدك' (line 5) *[Perfect! But they would not help you permanently. I suggest to take antibiotics for the allergy.]*. His second interruption might be a sign of disagreeing with her.

It is clear that doctors are dominating the consultation by asking open-ended questions aimed at receiving one-word answers about the patient's health, this often disregards additional responses the patient may provide. This finding is interesting considering the fact that many studies found that non-verbal behaviours such as interruptions can interfere with the patient's storylines thereby missing important information (Cordella, 2004; D'Agostino & Bylund, 2014; Hine, 2013). Therefore, the impact of doctor's non-verbal communication of dominance and control can be obstructive for effective D-P communication.

5.3 Getting the message across: effective non-verbal communication in D-P interaction

5.3.1 Eye contact for communication enhancement

Eye contact is probably most likely the main issue in non-verbal communication that has been considered extensively. It includes the characteristics of 'glancing at somebody' or looking and 'eye contact.' Glancing at someone means to look at his facial expression or potentially look in the eyes of another person. In this study, eye contact is recognised whenever this expression is concurrent and, thus mutual (Scherer & Wallbott, 1984 as cited in Knöfler & Imhof, 2007), and should not be ignored. Eye contact reveals that the doctor is engaged and listening to the patient (Remland, 2017). It is also significant because it refers to evidence of a vital progression for patient-centred maintenance in which it may demonstrate to the doctor the affectional and informational signals articulated by the patient.

Since all eighteen encounters are videotaped, eye contact occasionally works as a good indicator of successful communication and a positive relationship between doctors and patients. The doctors and the patients maintained eye contact in all consultations. Sometimes, eye contact is accompanied with other body language, such as shaking of the head, the shoulder, or hand pointing. For example, in the following Fragment 5.13:

Fragment	Date source	Doctor: Nabeel				Patient: Mr Muneer			
5.13 Continued from 5.9	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	65	Muslim	B.A of Medicine	M	41	Muslim	B. A

8a Dr Shadi: ☉→ _____ ☉→
8 Dr Shadi: خير يا أخ منير
[*What is wrong with you, brother Muneer?*]
9a Mr Muneer: ☉→ _____ ☉→
9 Mr Muneer: دكتور من الأربعاء مش الماضي اللي قبلها
[Doctor! Since last day…]
10a Dr Shadi: ☉→ ☉→
10 نعم
[Yes]
11a Muneer: ☉→ _____ ☉→
11 Muneer: من حوالي ١١ أو ١٢ يوم
[Since 11 or 12 days ago,..]
12a Dr Shadi: / \ / \
12b Dr Shadi: ☉→ ☉→
12 نعم
[Yes]
13a Mr Muneer: ☉→ _____ ☉→
13 Mr Muneer: صابتني انفلونزا ظلت معي لمدة اربعة ايام
[I got a flu and it lasted for four or five days.]
14a Dr Shadi: ! ! _____ ! !
14b Dr Shadi: ☉→ _____ ☉→
14 Dr Shadi: لفحة هواء وكنت عرقان
[Muscle Spasm! And you were sweating.]
14c Mr Muneer: ☉→ _____ ☉→

15a Mr Muneer: ☉→ _____ ☉→
15 Mr Muneer: نعم و أصابني سيلان شديد في االفترة هذي خميس و جمعة و سبت. والأحد بلش يخف السيلان مع كحة قوية، و ظلت لغاية ...
[Yes, I got runny nose last Thursday, Friday, and Saturday.
However, I got severe cough on Sunday, and it affected me till ….]
16a Dr Shadi: ☉→ _____ ☉→
16 Dr Shadi: و الكحة ليل و نهار أو في أوقات أكثر
[Does the cough get worse during night and day? Or does it occur in certain times?]
17a Mr Muneer: ☉→ _____ ☉→
17 Mr Muneer: ليل و نهار، بس بالليل أكثر
[Yes, it affects me night and during the day but more at night.]

Notational symbol	Meaning
☉→	Speaker is gazing towards the other party
/ \	Symbolise the upward and downward nodding of the head, respectively

When Mr Muneer arrived at the hospital with asthma in his chest, Dr Shadi opened the conversation with an opening question "!خير" (line 8) *[What's wrong with you?]*. Meanwhile he maintained eye contact (line 8a) with Mr Muneer as he engaged with him in conversation. The patient responded to the doctor's initiating question by stating that he had developed asthma nearly two weeks ago (lines 11& 13). Dr Shadi interrupted him (line 14a) and said ' لفحة هواء وكنت عرقان' (line 14) *[Muscle Spasm! And you were sweating], as* he maintained eye contact with him (line14b). The patient continued explaining the symptoms of his asthma whilst maintaining eye contact with Dr Shadi (line 15a & 17 a).

In Fragment 5.14, the doctor maintains eye contact with the patient; this encourages the patient to finish explaining his medical complaint. In Fragment 5.14 below, a similar pattern is observed. Dr Nabeel displays his attention toward the patient by maintaining direct eye contact with Mr Mamoun as follows:

Fragment	Date source	Doctor: Nabeel				Patient: Mr Mamoun			
5.14	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	28	Muslim	B.A of Medicine	M	65	Muslim	Primary

1a Dr Nabeel: ☉→ ☉→
1 Dr Nabeel: شو مشكلتك؟ {Holding the medical record}
[What is your complaint?]
2a Mr Mamoun: ☉→ ☉→
2b Mr Mamoun: ☞ ☞
2 Mr Mamoun: مشكلتي عندي حساسية و التهابات في عيوني ورشحة و عطاس دائما
[I suffer from allergy (unspecified), *eye irritation, a cold and permanent sneezing]*
3a Dr Nabeel: ☉→ ☉→
3 Dr Nabeel: من متى بلشت معك هذي الأعراض؟
[When did these symptoms start?]
4a Mr Mamoun: / \ / \
4b Mr Mamoun: ☉→ ☉→
4 Mr Mamoun: والله تقريبا من أسبوعين
[I swear, since two weeks ago]
5a Dr Nabeel: ☉→ ☉→

5 Dr Nabeel: عطاس و سيلان في الأنف؟
[Sneezing and mucous?]
6a Mr Mamoun: / \ —/ \
6b Mr Mamoun: ☪→___ ☪→
6 Mr Mamoun: آه
[Yes]

Notational symbol	Meaning
/ \	Symbolise the upward and downward nodding of the head, respectively
☞	Right pointing backhand index

After greeting Mr Mamoun and asking his name and age, Dr Nabeel initiated the medical interview by asking Mr Mamoun' what his complaint is (line 1) while keeping his eyes on him (line 1a). Mr Mamoun started to describe his ailment (line 2) as he pointed to the source of the symptoms (line 2b) and maintained eye contact with Dr Nabeel (line2a). He successfully encouraged Dr Nabeel to keep looking at him. Dr Nabeel got clarification about Mr Mamoun's health condition by asking "من متى بلشت معك هذي الأعراض؟" (line 3) *[When did these symptoms start?]* as he placed the file on the side of the bed. He turned around to continue listening to Mr Mamoun with a direct gaze (line 3a). In avoiding using the medical record while Mr Mamoun was speaking, Dr Nabeel showed he was determined not to miss any details and information provided by Mr Mamoun. He displayed a sustained eye gaze in order to encourage him to disclose his complaint and any necessary information. It has been shown that maintaining eye contact (line 5a) with the patient seems to convey attention, warmth, value and understanding (Clipper, 2015; Roberts & Bucksey, 2007). More specifically this study would indicate that doctors are more effective when they maintain eye contact with patients in order to create and maintain a positive relationship with them (Morgan et al., 2017).

5.3.2 Smiling as an accommodative strategy

The study noted that doctors were very polite in their interaction with patients using positive non-verbal behaviours such as smiling. It is also noted that the patients were more satisfied

when doctors smiled because smiling conveys various desirable indicators, such as encouragement, sympathy, trust, care and warmth. During the interview, when the researcher asked the patients how they would like their doctor to treat them, Mr Sami replied:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
5.15	Interview	Mr Sami	M	37	High/ Bachelor	Muslim

" بروح مرحة. يكون مرح، مبتسم"

[He should have a sense of humour. He should be funny and smiley.]

In Mr Sami's case, smiling and using humour will meet his satisfaction and result in better health outcomes. As seen, when the doctor has a sense of humour[4], the tension and seriousness of the medical encounter can be softened which will create a friendly environment that will have positive results on patients' health outcomes (Harvey & Koteyko, 2013; Ridley et al., 2014) and overall satisfaction. Similarly, Ms Ayat claimed:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
5.16	Interview	Ms Ayat	F	35	Secondary	Muslim

" هسه لما تجي على الطبيب أنه يكون وجه بشوش و يضحك ويستمعلك، و لغته تكون واضحة"

[When you visit the doctor, his face should be happy and smiley. He should listen to you, and his language should be clear.]

Ms Ayat prefers her doctor to have a happy and smiley facial expression as this is perceived as more friendly and caring. Also, she prefers a doctor who has a willingness to listen and whose language is clear and understandable. Ms Ayat expects that the doctor should use some non-verbal behaviours such as smiling and some verbal behaviours such as listening and clear language to establish a good relationship with her.

[4] Humor is 'a communication strategy that is used consciously or subconsciously to create amusement or to disguise serious messages with an allegedly amusing surface' Schöpf, A. C., Martin, G. S., & Keating, M. A. (2017). Humor as a communication strategy in provider–patient communication in a chronic care setting. *Qualitative Health Research*, *27*(3), 374-390. https://doi.org/10.1177/1049732315620773. In this study it is used by doctors to show care, support, or create warmth, and closeness.

In alignment with Ms Ayat's expectation, doctors viewed the non-verbal behaviour "smiling" as a strategy for building trust and intimacy with patients; this is particularly successful when greeting patients (Eaves & Leathers, 2018). For the most part, doctors were found to use convergence strategies by showing positive facial expressions such as smiling at the beginning of consultations. In other words, this was shown in the first component of the medical interview by the greetings, as is evident in the following two fragments from observation data:

At the beginning of the consultation, Dr Asma was smiling and showing interest in her patient Ms Shayma'a by welcoming her after asking her name as follows:

Fragment	Date source	Doctor: Asma				Patient: Ms Shayma'a			
5.17	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		F	27	Muslim	B.A of Medicine	F	55	Muslim	Primary

1 Ms Shayma'a: بشكي من مرض السكري و مرض الضغط و رجلي و ظهري
[I'm complaining from diabetes, blood pressure and pain in my legs and back.]

2a Dr Asma: ☺ ——————— ☺

2 Dr Asma: أول شيء عرفينا على حالك؟
[First of all, could you introduce yourself?]

3 Ms Shayma'a: إسمي شيماء
[My name is Shaimaa.]

4a Dr Asma: ☺ ——— ☺

4 Dr Asma: أهلا و سهلا
[You're welcome!]

Notational symbol	Meaning
☺	Indicates the speaker is smiling while speaking

Dr Asma greeted and showed interest in Ms Shyama'a by using words or statements that show care and concern throughout the consultation such as the statement "أهلا و سهلا" (line 4) *[You're welcome!]* accompanied by smiling (line 4a). Dr Asma interrupted Ms Shayma'a with a smile (line 2a) and asked about her name (Line 2), thus intending to show interest in building a good

interpersonal relationship with Ms Shayma'a and to establish a warmth atmosphere. As a result, this might help her to feel more comfortable during the consultation.

In the second Fragment 5.18 between Dr Sabri (27 years old, educated in English) and the patient Mr Ahmed, smiling and humour were used to build a friendly relationship and mutual trust between the doctor and patient.

Fragment	Date source	Doctor: Sabri				Patient: Mr Ahmad			
5.18	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	27	Muslim	B.A of Medicine	M	24	Muslim	Primary

1 Dr Sabri: طيب. سيدي العزيز الإسم الكريم إيش؟
[All right. Dear, what is your name?]
2 Mr Ahmad: إسمي أحمد
[*My name is Ahmad.*]
3 Dr Sabri: من وين؟
[From where?]
4 Mr Ahmad: من إربد
[I'm from Irbid]
5 Dr Sabri: من وين بالضبط؟
[From where exactly?]
6 Mr Ahmad: من جتيتة
[From Jtaita]
7a Dr Sabri: ☺———☺
7 Dr Sabri: لأنه أنا برضو من جتيتة
[Because I'm from Jtaita, too]
8a Mr Ahmad: ☺———☺
8 Mr Ahmad: والله! أهلا و سهلا يا سيدي
[Really! You are welcome, dear!]
9a Dr Sabri: ☺———☺
9 Dr Sabri: حياك الله يا سيدي
[God bless you, dear!]

Notational symbol	Meaning
☺	Indicates the speaker is smiling while speaking

In the example above, Dr Sabri was collecting some demographic information by asking Mr Ahmad personal questions (line 1,3, & 5). Dr Sabri demonstrated that he was not only

collecting this demographic information as a medical procedure but for the purpose of indicating that he cared to know where Mr Ahmad lived and inquiring further by asking exactly where he was from. Mr Ahmad specified the exact name of the town (line 6), and then Dr Sabri replied "لأنه أنا برضو من جتيتة" (line 7) [*Because I'm from Jtaita, too*] specifying he lived in the same town which it was not surprising for him. Accordingly, Mr Ahmad was happy and smiling (line 8a) when Dr Sabri shared this personal information with him about his town' location and replied "والله! أهلا و سهلا يا سيدي" (line 8) [*Really! You are welcome, dear!*]. As a show of appreciation to Mr Ahmad' answer, Dr Sabri smiled (line 9a) and replied "حياك الله يا سيدي" (line 9) [*God bless you!*].

Dr Sabri showed genuine interest in the information he was collecting about Mr Ahamed and used a strategy of convergence not only in displaying the non-verbal accommodation by smiling (line 7a & 9a) but also in verbal accommodation in replying "حياك الله يا سيدي" (line 9) [*God bless you, dear!*].

Smiling was not only used as an accommodative strategy in exchanging personal information which helped move the D-P interaction forward but it was also noticeable in humorous moments which helped break the tension during the medical consultation. Similarly, In the continued observation in Fragment 5.19, Dr Sabri was trying to close the distance between him and Mr Ahamed by using sense of humour as seen below:

Fragment	Date source	Doctor: Sabri				Patient: Mr Ahmad			
5.19 Continued from 5.18	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	27	Muslim	B.A of Medicine	M	24	Muslim	Secondary

10 **Dr** Sabri: طيب. عمرك قديش؟
[All right. How old are you?]
11 Mr Ahmad: ثلاثة و عشرين و نص
[Twenty-three and half years old.]
12 Dr Sabri: ثلاثة و عشرين و نص ؟ يعني بيني و بينك خمس سنوات تقريبا

[Twenty-three and a half years old? It is nearly only five years between us.]

13a Mr Ahmad: £ £

13b Mr Ahmad: ☺ ☺

13 Mr Ahmad: والله؟ يا سيدي العمر كله

[Really? I wish you dear a long life.]

14a Dr Sabri: ☺ ☺

14 Dr Sabri: الله يخليك إن شاءالله

[God bless you.]

15 Dr Sabri: بدخن؟

[Do you smoke?]

16 Mr Ahmad: بدخن بس أرجيلة

[I smoke only narghile.]

17a Dr Sabri: ☺ ☺

17 Dr Sabri: أرجيلة! بس الأرجيلة من مشتقات الحليب؛ عشان هيك ما بتعتبرها دخان

18a Mr Ahmad: £ £

[*Narghile? But it is from dairy products, and that is why you do not consider it like smoking.*]

Notational symbol	Meaning
☺	Indicates the speaker is smiling while speaking
£	Indicates the speaker is laughing

The interaction with Mr Ahmad continued in Fragment 5.19 with an exchange of demographic information about his age this time. This interaction had a humorous effect. It seemed that Mr Ahmad was more relaxed when involved in this dialogue as observed on his facial expressions and body language. Also, the use of humour served its purpose; to lighten the tone of the interaction (Hine, 2013) and establish an interpersonal relationship (Kalbfleisch, 2009). Dr Sabri asked Mr Ahmad about his age (line 10), and Mr Ahmad said that he was 23 and a half years old (line 11). Then Dr Sabri asked, "ثلاثة و عشرين و نص ؟ يعني بيني و بينك خمس سنوات تقريبا ؟" (line 12) [*23 and half years old?*]. This rhetorical question was spontaneous, not in the form of question and answer, but for sense of humour. Dr Sabri added, " يعني بيني و بينك خمس سنوات تقريبا" (line12) *[Twenty-three and a half years old? It is nearly only five years between us]*. The intention behind Dr Sabri's added comment was to make the consultation feel more conversational, in a friendly atmosphere. The reaction was a comical one. Mr Ahmad raised his intonation, started to smile (line 13 b) and laugh (line 13a) and replied, " والله؟ يا سيدي العمر

كله" (line 12) [*Really? I wish you dear a long life*] admitting that he was actually surprised. Dr Sabri then showed appreciation of Mr Ahmad' compliment with a smile (line 14a).

As we examine Fragment 5.19, Dr Sabri also used smiling and humour in another instance (line 17a) when asking Mr Ahmad if he smokes or not (line 15). Since Mr Ahmad smoked "narghile" only (line 16), he dismissed it as a problem in Fragment 5.19 which led Dr Sabri to respond with humour (17a) "أرجيلة! بس الأرجيلة من مشتقات الحليب؛ عشان هيك ما بتعتبرها دخان" (line 17) [*Narghile? But it is from dairy products, and that is why you do not consider it like smoking*]. In response to Dr Sabri's humour, Mr Ahmad produced laughter (line 18a) as an indicator he was more relaxed. Dr Sabri took this opportunity to advise that narghile is another a form of smoking which adversely impacts patient's health (line 40). Essentially, his non-verbal behaviour such as smiling conveyed a powerful signal of caring and concern about Mr Ahmad's well-being and contributed to the successful clinical encounter. In essence, these humorous moments can contribute significantly to a greater understanding of the patient and the patient's needs (Kalbfleisch, 2009).

In Fragment below 5.20 is another evident case of smiling and humour initiated by Dr Shadi, who is a GP educated in English.

Fragment	Date source	Doctor: Shadi				Patient: Mr Sameeh			
5.20	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	65	Muslim	B.A of Medicine	M	51	Muslim	Secondary

1 Dr Shadi: شو بتشتغل انت يا عم سميح ؟
[What are you doing for a living, uncle Sameeh?]
2 Mr Sameeh: أنا موظف في مركز الشباب. بس هسه متقاعد
[I was an employee at the Youth Centre, but now I'm retired.]
3a Dr Shadi: ☺———☺
3 Dr Shadi: متقاعد؟ يعني إنت ما بتبذل شغل؛ قاعد و رجل على رجل
[Retired? It means that you do not make an effort and sit relaxed.]
4a Mr Sameeh: ☺———☺
4 Mr Sameeh: متقاعد جديد، إلي شهرين

[I retired two months ago.]

5a Dr Shadi: ☺_____☺

5 Dr Shadi:.... في بلاد برا بقولوا للمتقاعدين مبروك ، بس إحنا بنقوله يا ويلك! بدت المشاكل معك

[In foreign countries, they used to congratulate the retired people, But here you do not even think about it. It is the start of troubles in your life.]

6a Mr Sameeh: ☺_____☺ {He was being measured for his pressure by a nurse}

7 Dr Shadi: بده المتقاعد يدور على شغل من جديد

[A retired person would start searching for another job.]

Notational symbol	Meaning
☺	Indicates the speaker is smiling while speaking

In greeting Mr Sameeh, Dr Shadi used the social honorific 'يا عم' (line 1) *[Uncle]* to close the distance between him and Mr Sameeh. Dr Shadi used various social honorifics not only with Mr Sameeh, but with Mr Muneer (see Fragment 5.9) when he said 'أخ' *[Brother]* many times throughout the Fragment. Dr Sabri also used another social honorific 'سيدي' [Dear] when he was collecting demographic information about Mr Ahmad (See Fragment 5.7). Social honorifics are used in Jordanian context to express respect to the addressee and to promote cohesion and solidarity with him/her for different purposes (e.g., greetings, questions, requests, etc.) (Farghal & Shakir, 1994; Rababah & Malkawi, 2012).

In Fragment 5.20 above, Dr Shadi was complimenting Mr Sameeh for being retired and not making much effort (line 3). He used a culturally appropriate topic to create a humorous effect by saying the Jordanian cultural expression 'قاعد و رجل على رجل' which literally means 'sitting with crossed legs'. This metaphorically means 'sitting relaxed without making an effort'. In line 3a, Dr Shadi smiled while using a humorous statement about retirement saying that in the foreign countries, they used to congratulate the retired people and view it as a reward, but in Jordan, Mr Sameeh would not want to think about it as it would add to the troubles in his life. Mr Sameeh smiled (line 6a) and did not even reply in agreement to Dr Shadi' truth about retired people although it was said in humour. Overall, Dr Shadi used humour in his interaction with

Mr Sameeh to close the social distance between them. This is a CAT strategy for making medical advice better understood and accepted. This is done by converging to lower status groups by changing language in order to gain their approval and acceptance (Giles et al., 1987).

This finding is consistent with research indicating that doctors' positive non-verbal behaviours such as smiling creates a friendly and positive environment for patients and may convey various desirable demonstrations such as encouragement, care and understanding (Gorawara-Bhat et al., 2017; Hillen et al., 2015; Jannat, 2018). Although doctors were very polite in their interaction with patients, smiled and offered caring and encouraging comments (Fawole, 2014), they used different non-verbal cues (showed power through expansive body language (see 5.2.2.1) and paralinguistic cues to display their dominance) (see 5.2.2.2). Also, doctors were evaluated in a positive way when they smiled a lot (Mast & Cousin, 2013) and had a sense of humour (McCreaddie & Payne, 2014). To emphasize this, the medical advice was as a result contextualized to each individual patient who would likely accept it willingly.

It is also found that humour was present in D-P interaction to break the tension of the medical encounter (Domingo, 2010; Hine, 2013) and to improve connection in the unfamiliar environment (Magana, 2013; Montague, 2018).

5.3.3 Hand kinesic cue for pain communication

Another form of non-verbal communication that is perceived as a key non-verbal cue in D-P communication is kinesic cues. Patients express pain through emotional expressions (e.g., kinesic cues, crying, screaming, moaning, clenching teeth) (Regnard, 2004). Kinesic cues are spontaneous movements of the hands and arms and can be produced naturally and spontaneously during the conversation (Rowbotham et al., 2012). For example, hand kinesic cues can reinforce a patient's description and location of the pain. In this study, patients used hand kinesic cues to identify the location of the pain and to describe their symptoms to the

doctor during medical consultations. For instance, in Figures 5.23, 5.24, and 5.25 below, Ms Ayat used her deictic kinesic cues (McNeill, 2005) to signal the location of her pain and to describe her symptoms to Dr Hassan:

Figure 5.23

Ms Ayat placed her right palm flat down to describe the symptoms in her left hand. She placed her right hand down, fingers pointing down onto the left hand to signal the location of pain.

Figure 5.24

Ms Ayat pointed to her left wrist with her right index finger.

Figure 5.25

Ms Ayat clenched her left fist to describe her symptoms.

Fragment	Date source	Doctor: Hassan				Patient: Ms Ayat			
5.21[5]	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	26	Muslim	B.A of Medicine	F	35	Muslim	

1 Dr Hassan: صار فيها التواء او ضرب مباشر؟
[Did you experience a sprain in your wrist or direct hit?]

2a Ms Ayat: 👇 _____ 👇

2 Ms Ayat: لا. أنا هيك زحلقت و إجت ايدي بالزاوية هيك….
[*No. I slipped off, and my hand turned to the corner….]*

3a Dr Hassan: L ↑_____ L ↑

3b Dr Hassan: ☪ x _____☪ x

3c Dr Hassan: :: _____::

4a Ms Ayat: 👉_____👉

4 Ms Ayat: فلما إجت هيك ، هذا كله انقلب أزرق و صار الصبح خذلان فيها
[This turned blue with numbness in the morning.]

5 Dr Hassan: في الحركة مشكلة؟
[Do you have any trouble with movement in your hand?]

6a Ms Ayat: : ✊ ____✊

[5] This fragment used Fragment 5.1; however, it is being analysed according to different nonverbal cues.

6 Ms Ayat: لا. بس حاسة فيها خذلان

[No. I have only a feeling of numbness in my hand.]

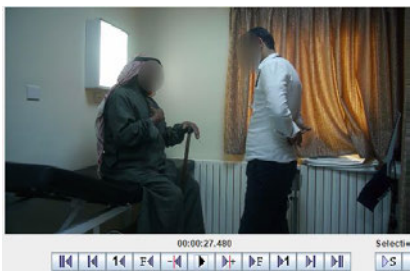
Notational symbol	Meaning
🖒	Down pointing backhand index
👉	Right pointing backhand index
✊	Clenching fist
L ↑	Speaker leans forward while talking
::	Indicates the speaker pauses or remains silent
C x	Indicates the speaker gazes to an object (e.g., to a body organ)

When Dr Hassan asked Ms Ayat *[Did you experience a sprain in your wrist or direct hit?]* (Line 1), she performed a deictic kinesic cue (Line 2a) to explain her injury. This deictic kinesic cue not only points to the location of pain, but it also means that Ms Ayat asserted that she did not experience a sprain in her fist or from a direct hit, but she slipped off, her hand turning to the corner (Line 2). Ms Ayat's deictic kinesic cue captured Dr Hassan's attention, hence she leaned forward (line 3a) and looked at her hand (line 3b) (See Figure 5.23). She continued describing what she felt when she slipped off by using another deictic kinesic cue (line 4a) (See Figure 5.24) to point with her right index finger to the numbness in her left wrist. She also moved her hand by clenching her left fist (line 6a) (See Figure 5.25) to show that she had a feeling of numbness in her left hand.

Figure 5.26

Mr Saed points to his chest

Figure 5.27



Mr Saed points to his lungs

Figure 5.28

Mr Saed points to his right posterior calve

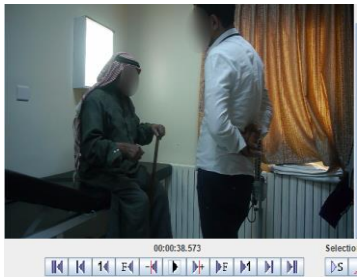
Figure 5.29

Mr Saed points to his left posterior calve

Figure 5.30

Mr Saed points to his back

Figure 5.31



Mr Saed clenches his right fist to describe his walk

Figure 5.32

Dr Adel uses his left hand to signal the source of the headache

The hand kinesic cue was aimed at communicating an emotional meaning, whereas the verbal message was used to communicate the direct meaning to Ms Ayat. Similar to this scenario, Mr Saed used hand kinesic cues to signal where the pain was and to describe his symptoms to Dr Adel as seen in Figures 5.26, 5.27, 5.28, 5.29, 5.30 and 5.31.

Fragment	Date source	Doctor: Adel				Patient: Mr Saed			
5.22	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	32	Muslim	B.A of Medicine	M	78	Muslim	Primary

1 Dr Adel: قديه عمرك؟
[What is your age?]

2 Mr Saed: عمري ٧٨ سنة
[I'm 78 years old.]

3 Dr Adel: طولة العمر!
[Wish you a long life!]

4a Mr Saed: 👉_____👉 👉___👉👉___👉

4 Mr Saed: أنا معاي شرايين، معاي أزمة ، معاي ربو، و هذول بوجعوني من وراء

4b ✊_____✊ 👉_____👉

4 Mr Saed: ظهري كمان نفس العملية بوجعني; بعض الأيام من الوجع ما بقدر أمشي هيك ، بزحف زحف

[I suffer from clogged arteries and asthma. I also suffer from pain across my two posterior calves; the left and right. I have also a pain in my back that sometimes does not enable me to walk and thus I crawl.]

5 Dr Adel: اليوم شو تاعبك؟

[What is your complaint, today?]

6 Mr Saed: اليوم دايخ

[I get dizzy.]

7 Dr Adel: مصدع؟

[Do you have a headache?]

8 Mr Saed: اها؟

[What?]

9a Dr Adel: 👉____👉 {Pointing to his head}

9 Dr Adel: مصدع؟

[Do you have a headache?]

10 Mr Saed: آه، مصدع

[Yes, I have a headache.]

Notational symbol	Meaning
👉	Right pointing backhand index
✊	Clenching fist

In this observation, Mr Saed immediately started describing his symptoms without a leading question from Dr Adel and explained that he suffered from clogged arteries and asthma (Line 4). He used deictic kinesic cues to point to the location of the pain across his two posterior calves; the left and right (line 4a, Figures 5.28 & 5.29), his back (line 4b, Figure 30) and his chest (line 4a, Figures 5.26, 5.27). He continued to describe how he walked based on his worsening condition and used an iconic kinesic cue (line 4b) to show that he crawled (see Figure 5.31). A deictic kinesic cue was also performed by Dr Adel (see Figure 5.32) when he asked Mr Saed whether he suffers from a headache or not (Line 7). Dr Adel used a deictic kinesic cue (line 9a) when Mr Saed did not understand his question 'مصدع؟' (Line 9) *[Do you have a headache?]*. Crane and Crane (2010) insisted that doctors should use non-verbal communications strategies when interacting with patients such as gazing, head nodding and body orientation to promote positive clinical outcomes. Hand kinesic cues can often be displayed interdependently and concurrently with spoken language, slightly preceding the part

of speech with which they are associated (Norris, 2004). Throughout the patients' responses in Figures 5.26 to 5.31, patients relied on hand kinesic cues to mimic what they want to communicate verbally. Such kinesic cues are particularly useful when the patients vivify the location of pain and verbally describe their symptoms.

The observations presented provide further evidence for previous findings on the relevance of non-verbal behaviours for pain communication (Chapman, 2017; Mast & Cousin, 2013; Robinson, 2006). Patients can express themselves verbally through words or non-verbally using kinesic cues to convey much information about pain.

5.3.4 Head nodding

The majority of patients were very polite while speaking to the doctors. During the conversation, there was a lot of head nodding from the patients accompanied by verbal communication such as the word "*نعم,اه" [Yes]*. For example, depending on the question asked or task at hand during a medical encounter, head nodding and other non-verbal and gestural behaviours (doctors' body posture) while speaking and listening were signs of power distance. These gestural behaviours and verbal interactions consisting of head nods and the word "Yes" were associated with a positive response, either to cooperate or to acknowledge the doctor's statement.

5.3.4.1 Head nodding for cooperation

During conversations, patients displayed a lot of head nodding indicating cooperation with their doctors and understanding the medical treatments. The conversations consisted of doctors who are the experts and patients who are merely required to cooperate. For example, across Fragment 5.23, the patient maintains his gaze and body orientation toward the doctor (Figure 5.33).

Figure 5.33

Mr Ahamed is gazing and nodding

his head

Fragment	Date source	Doctor: Sabri				Patient: Mr Ahmad			
5.23 continued from 5.19	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	27	Muslim	B.A of Medicine	M	24	Muslim	Secondary

19 Dr Sabri: لما أحكي سبب فايروسي ، مافي داعي اصرف فعليا مضاد حيوي لمريض عنده إلتهاب فيروسي لأنه المضاد الحيوي بشتغل على البكتيريا مش عالفيروسات.

[*When I say the cause is a virus; it means no need to prescribe antibiotics to a patient that has a viral infection because antibiotics works against bacteria not viruses.]*

20a Mr Ahmad: / _____ / \

20b Mr Ahmad: ☪→_____☪→

20 Mr Ahmad: فهمت عليك، تمام

[*I got it. Right!]*

Notational symbol	Meaning
/ \	Symbolises the upward and downward nodding of the head, respectively.
☪→	Speaker is gazing towards the other party

As mentioned in Chapter 4.4, Mr Ahmed was observed prior to videotaping convincing Dr Sabri to give him a certain type of injection without examination with which Dr Sabri did not agree and asked him to enter the examination room. Dr Sabri agreed to Mr Ahamed's request after listening and giving him time and space to express his thoughts by helping him to recognise the risk of taking a prescription antibiotic without consulting a doctor. In Fragment (5.23), when Mr Ahmad communicated with Dr Sabri, his response 'فهمت عليك، تمام' (line 20) "I got it. Right!" was accompanied by repeated nodding of his head (line 20a) and eye contact

(line 20b). In this case, head-nodding by Mr Ahmad may not mean he actually understands or agrees with what Dr Sabri says but could be a sign of cooperation. Evidence of this claim is that in this scenario (see Fragment 5.24), Dr Sabri continues to explain to Mr Ahmad that some patients will insist on certain medications regardless of their doctor' advice. The encounter continues:

Fragment	Date source	Doctor: Sabri				Patient: Mr Ahmad			
5.24 continued from 5.23	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	27	Muslim	B.A of Medicine	M	24	Muslim	Secondary

21 Dr Sabri: شو الإبرة اللي بدك اياها؟
[What sort of injection do you want?]

22 Mr Ahmad: بدي إبرة تخفف شوي من
[I want an injection to get a little relief from pain ..]

23 Dr Sabri: بعطوك إبرة فوتركس أو دكسان أو اللي بسموها إبرة بجيك مريض انا بدي ابة الخلطة الخلطة. لو سألتني طبيا انه صح؟ بقول: لا.بس بصرفها مكافاة شر الناس.
[They may prescribe Votrex or Dexa injection. You may ask if it is true or not! It is not. However, I prescribe it to avoid patients' annoyance. A patient may request this mixed injection.]

24a Mr Ahmad: £_____£

24 Mr Ahmad: بجوز هو مش عارف
[It might he doesn't know this fact.]

25 Dr Sabri: فيش عنا في الطب اخلط، يعني كل إبرة لحال
[In medicine, we do not use to mix injections. Injection should be prescribed alone.]

26a Mr Ahmad: /____/\

26 Mr Ahmad: مزبوط
[Right]

27 Dr Sabri...عشان ما أوجع راسي مع المريض لأنه المريض أولا و آخرا رح يوخذها
[However, at the end, the patient will take it.]

28a Mr Ahmad: /__/\

28 Mr Ahmad: أكيد
[Sure]

Notational symbol	Meaning
£	Indicates the speaker is laughing
/\	Symbolises the upward and downward nodding of the head, respectively

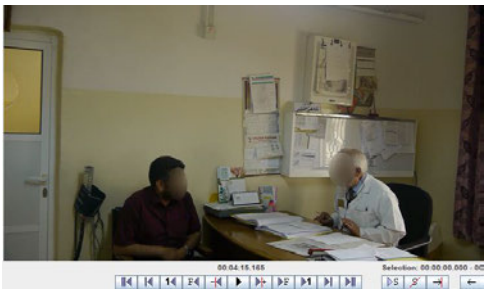
Dr Sabri states in this fragment that patients do not listen to doctor's advice regarding the type of medication they should take; it should be based on their health condition, not on personal preference. Moreover, they take the wrong medication and incorrect dosage which can

adversely impact their health. In his case, he overcomes this challenge by giving these difficult patients what they request and not based on their diagnosis. After all, they will take the medicine they want, which is frustrating to doctors. In accordance with Dr Sabri's claim, Mr Ahmad nods his head (line 26a& 28a) to cooperate with Dr Sabri, however, will not necessarily follow his medical advice if not convinced. According to IST, patients' cooperation could be interpreted as a form of exchanges of moves serving to achieve their communicative goals (Gumperz & Cook-Gumperz, 2012).

5.3.4.2 Head nodding for acknowledgement

Head nodding throughout the medical consultations appeared to be a display of acknowledgment to doctors' expertise and understanding of their medical treatments. The single head nod may be produced alone, or combined with expressions such as "mh hm" and "okay" (Müller et al., 2014). In this study, head nodding was expressed alone or accompanied with acknowledging expressions such as "*اه, نعم" [Yes]*.

Figure 5.34



Dr Shadi is shaking his head while
Mr Muneer is nodding his head

Similar to this scenario, Mr Muneer nodded his head in agreement to Dr Shadi's recommendation (See Figure 5.34). However, his acknowledgement does not necessarily mean 'Yes, I agree'–it may usually mean 'Yes, I hear you'. To illustrate this notion, let us consider Fragment (5.25). Mr Muneer is a 41-year-old engineer, presented earlier in this medical

interview his main health complaint is a bronchial infection developed by a cough and shortness of breath that caused him extreme pain and discomfort particularly at night.

Fragment	Date source	Doctor: Shadi				Patient: Mr Muneer			
5.25 Continued from Fragment 5.10	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	65	Muslim	B.A of Medicine	M	41	Muslim	B. A

30a Dr Shadi: ʘ→ _____ ʘ→
30b Mr Muneer: /\ _____ /\
30 Dr Shadi: أنصحك تترك التدخين لأنه هذي بداية حساسية و ممكن يصير معك ربو أو أزمة
[I advise you to quit smoking because this is the start of new allergic rhinitis, and there is a possibility of asthma.]
31a Dr Shadi: @_____ @
31b Dr Shadi: ʘ→_____ʘ→
31 Dr Shadi: هذي الأسماء اللي بتخافو منها
[These names you afraid of.]
32 Mr Muneer: /\ _____ /\
33 Dr Shadi: الدخان، البخور، العطور الشديدة، وشجر الزيتون
[Smoking, incense, intense perfumes, and olive trees.]

Notational symbol	Meaning
/\	Symbolise the upward and downward nodding of the head, respectively
@	Indicates that the speaker shakes his/her head from side to side
ʘ→	Speaker is gazing towards the other party

The above Fragment 5.25 powerfully illustrates the point that Dr Shadi was dominating the medical interview by adopting some linguistic features such as floor-holding and some non-verbal behaviours such as body posture (see 5.2.2.1), a high-pitched voice (see 5.2.2.2), and so on. This clearly made him appear higher in status and power in comparison to the relatively less powerful and silent Mr Muneer. As a warning or "threat" (Burgoon & Dunbar, 2006, p. 282) Dr Shadi shook his head (line 32a) and made eye contact (line 32b) to direct Mr Muneer to listen to his medical advice (Pagano, 2018) in quitting smoking in order to avoid developing allergic rhinitis and asthma. Rejecting the doctor's advice is considered an act of resistance, possibly risking negative consequences to the health of the patient. Thus, Mr Muneer

immediately nodded his head (line 31a & 33a) to possibly show his agreement and understanding, a response to reveal that he was likely to be receptive to his doctor's recommendation even though normally would have been reluctant to do so.

Two possible explanations of the findings are: first, patients who perceived themselves as less powerful (Goffman, 1961) than doctors who have the medical knowledge about their condition (Ahmed & Bates, 2016; Cordella, 2004; Magana, 2013), and second the influence of high-power distance culture in their non-verbal communication resulting in showing respect to the high status of doctors (Ge et al., 2009; Pagano, 2018; Wang, 2010). Hence, they expressed understanding and agreement (Müller et al., 2014) by affective-relational skills in communication including maintaining eye contact and head nodding (Eaves & Leathers, 2018; Pease, 2004; Remland, 2017; Wang, 2010). However, in some cultures, the Jordanian being one of them, when a patient nods his head this does not necessarily mean a "Yes" answer. It could be a sign of respect for the authority and high, social status of doctors, even though he does not understand the doctor's explanation (Mulyana, 2016).

5.4 Summary

This chapter attempted to identify the non-verbal cues that hinder doctor-patient communication, which could be necessary for effective communication. The non-verbal cues were analysed from data collected by direct observations of participants during their medical interaction and enhanced with interview data. This project identified four non-verbal barriers that impact D-P interaction: Touch or not to touch, Expansive body posture, Dominant high-pitched voice of doctors and Doctors interrupting patients. The findings also showed that doctors were effective in communicating with patients using non-verbal cues such as eye contact and smiling. Similarly, patients using non-verbal strategies such as head nodding as

cooperative and acknowledging behaviour and hand kinesic cues to point to the location of their health condition and communicate their symptoms seemed to be effective.

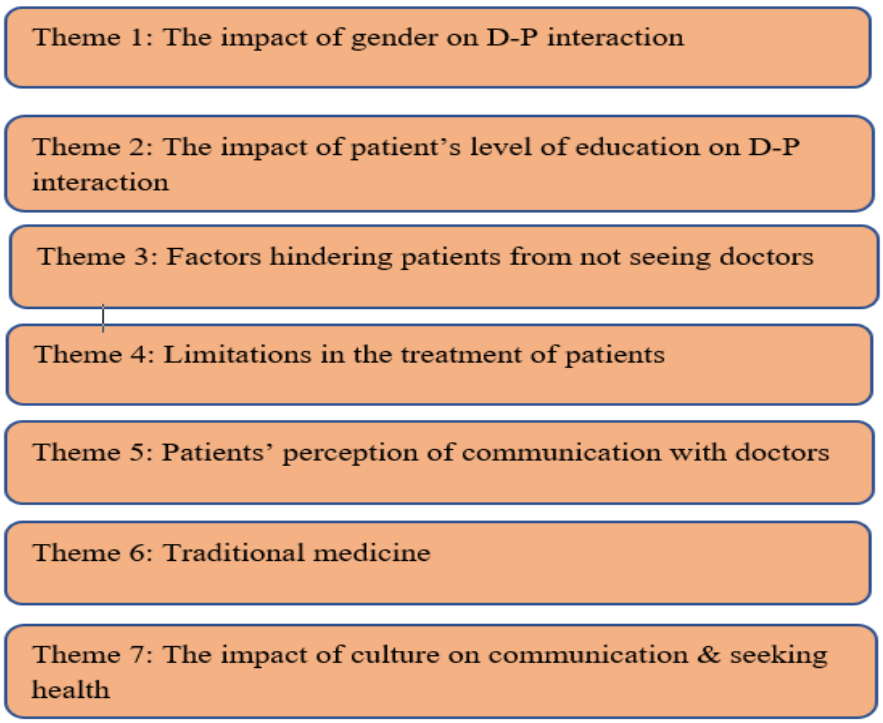
Chapter Six: Socio-linguistic and cultural influence on doctor-patient interaction

6.1 Introduction

This chapter outlines a summary of key findings to shed some light on the third research question in this study "What are the socio-cultural barriers that cause ineffective doctor-patient communication and misunderstanding?". Using the thematic analysis and Nvivo12 as an analytical tool, seven main themes were identified and analysed. They are 1) The impact of gender on D-P interaction, 2) The impact of patient's level of education on D-P interaction, 3) Factors that hinder patients from seeing doctors, 4) Limitations in the treatment of patients, 5) Patients' perceptions of communication with doctors, 6) Traditional medicine, 7) The impact of culture on communication & seeking health (See Figure 6.1).

Figure 6.1

Key Themes of Socio-Linguistic And Cultural Influence On D-P Interaction



Subthemes have also been identified under each of the seven themes with the findings presented under the relevant subheadings, illustrated by fragments from interview data and observations.

Physical proximity and the posture of doctors and patients in the consulting room can have an impact on patient experience and may have an overall negative effect on their interaction (Morgan et al., 2017). As previously explained in the methodology chapter (See section 3.3.1), the clinical settings included small offices for the GPs and a big emergency room for physical examination divided by curtains into small sections. The outpatients' clinics included small offices for the GPs equipped with a couch and a small desk with one chair for the patient and the other for a nurse. This would make it challenging for Arabic speakers and those of Muslim backgrounds in terms of limited space, proximity, and touch.

Most of the patients reported that they had encountered cultural barriers when interacting with their doctors. Many patients felt that cultural differences made interaction during consultation more difficult when doctors were of a different gender to them. In the Arab world as a rule, women may allow doctors to expose some parts of their body for examination even though they do not expose it to anybody else even possibly their husbands. In Jordan, in general it would not be any different but of course, there are some patients who are very strict and would not allow a male doctor to expose even the non-sensitive parts of their bodies for medical examination even in the presence of a trusted relative. People can sense whether the actions of the doctor during the investigation is professional or not.

6.2 The impact of gender on D-P interaction

Gender was identified as an issue that influenced D-P interaction, trust and respondents' satisfaction. The patients were asked about their doctors' gender preference and to identify whether doctors' gender had any impact on their communication during the consultation. Ten patients initially said they had no particular preference as to the gender of the doctor during the consultation; however, six of them proceeded to declare that they preferred to be examined by the same-sex gender when disclosing sensitive information.

6.2.1 Perspective of patients

In response to the questions “How you do choose your doctor? Does the doctor’s gender (female or male) impact your interaction?” Mr Muneer replies:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.1	Interview	Mr Muneer	M	41	BA	Muslim

"لا ما بيأثر، أنا بيهمني الفائدة العلاجية اللي أخدها"[6]

[No, it does not. What I care about are the medical benefits.]

When the researcher asked him if gender preference would impact him in case of a sensitive related topic, he replied:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.2	Interview	Mr Muneer	M	41	BA	Muslim

"بالأمور هذه أفضل الطبيب من الناحية الدينية بحاول ألجأ إليه فقط من ناحية خجلية. أخجل أحكي مع الست في بعض أمور؛ بجوز ما أُقدر أوضح، وما بعرف أقدر أكمل."

[In such cases, I would rather be examined by a male doctor from a religious aspect and to avoid embarrassment. I feel shy when talking with a female doctor about some stuff. I might not be able to explain to her what I feel.]

Another respondent argues:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.3	Interview	Mr Murad	M	46	Diploma	Muslim

"بشكل عام الواحد بدور على المهارة، سواء ذكر أو أنثى .ما يبهمني، ولا مسلم ولا مسيحي، ما يبهمني."

[Generally speaking, one seeks expertise whether he is a male or a female doctor. I do not care whether he is Muslim or Christian.]

Mr Murad contends that the expertise of a doctor is more important to him than issues of gender and his internal desire to be examined by a male doctor. This contradictory response resulted from the question “Does your doctor's gender matter in discussing sensitive issues?” He insists:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.4	Interview	Mr Murad	M	46	Diploma	Muslim

" طبعًا مع ذكر."

[Certainly, I would rather choose a male doctor.]

[6] Arabic text is left-aligned to fit the layout, and always placed left in the flow of the document wherever a block of Arabic text would be.

Only one female patient, Ms Rana, expresses no gender preference when seeking a doctor. She argues that her preference is based on characteristics such as understanding her health condition, how she is dealt with as a patient and being an expert with outstanding medical knowledge.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.5	Interview	Ms Rana	F	27	Secondary	Muslim

" أنا ما بهمني جنس الطبيب ، أهم شيء يفهم كلامي، ولغتي، ويعطيني حقي."
[I do not care about his gender; the most important thing is that he understands me and gives me my right.]

Likewise, five female patients and three male patients reported higher gender sensitivity where gender preference was reported an issue. One of the participants, Ms Haleema, comments:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.6	Interview	Ms Haleema	F	46	Elementary	Muslim

" دكتورة بحكي لها كل إشي، يعني زيي زيها بدي أحكي لها، يعني مثلاً لا سمح الله صدري، إيشي زي هيك بدي أحكي لها كل إيشي، بس الدكتور بستحي، ما بحكي له."
[I can tell a female doctor what I want as she is a female like me, for example, if I suffer from a pain in my breast, I cannot tell a male doctor about it because I feel shy.]

For Ms Haleema, it is embarrassing to discuss any sexual activity related to any part of the body with opposite-sex health professionals as this is perceived a taboo subject. This was highlighted by Dr Nabeel (See Fragment 6.68) as gender differences impacting diagnoses.

Another female patient, Ms Shayma'a argues:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.7	Interview	Ms. Shayma'a	F	55	Illiterate	Muslim

" أفضل أنه دكتورة. مع دكتور بنجي نشكيله مثلا معدتنا أجرينا، ضهرنا، نسائية لا."
[I prefer a female doctor. We do complain about our stomach, feet or back to a male doctor but not women sensitive issues.]

Ms Shayma'a feels embarrassed and uncomfortable if she is consulted by a male doctor, particularly when she complains about sensitive issues. In the observation, she was examined

by a female doctor upon her request, even though a male doctor was available at the time she visited the hospital.

As noted, patients' preference for the gender of a doctor appeared culturally determined by their beliefs and attitudes in terms of topics of a sexual nature. In Jordan, seeking help for sexual health problems could be perceived as taboo (Akhu-Zaheya & Masadeh, 2015; Al-Momani et al., 2017).

Regarding the influence a female patients' age has on her interaction with the opposite-sex, it does not seem to play any role during medical consultations. Therefore, age does not affect a female patients' overall satisfaction and interaction in this study, however, this it may be not generalized to all female patients in Jordan because of the diverse cultural communities in Jordan. However, what does have a great effect on D-P communication is a patients' religious beliefs. Religious beliefs of Muslim patients were found to affect their health behaviour with doctors. Muslim patients may be reluctant to share information regarding sexual health, particularly females whose first preference for healthcare professionals is a Muslim female, followed by a non-Muslim female, a Muslim male, and lastly a non-Muslim male (Tackett et al., 2018).

6.2.2 Perspective of doctors

On the part of doctors, the findings revealed that their gender influences their interaction with the opposite-sex. The majority of doctors identified their gender impacts their interaction with patients; however, only one doctor, Dr Shadi believed that there is no gender influence on his interaction with patients. The following examples illustrate this finding:

Dr Shadi states:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.8	Interview	Dr Shadi	M	65	English	Muslim

" الإناث يسهبوا بالحديث عن مشكلتهم و اكثر تحفظا و عندهم خوف و خجل."

[Females talk much about their health condition. They are also more conservative, afraid, and shy.]

Dr Asma claims that a male patient is more reluctant to disclose sensitive information - such as sexual organs, women's needs or any sexual health-related topics - to a female doctor, as indicated below:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.9	Interview	Dr Asma	F	27	English	Muslim

" تقريبا آه، لأنه يعني الرجل بيستحي إنه بيشكي مثلا من أشياء معينة قدام دكتورة. خلينا نحكي، فلما يكون التعامل بنات مع بعض غير عن لما يكون بنت مع رجل."

[Yes, nearly, as a male patient becomes shy to complain from certain things to a female doctor but dealing with girls is easier.]

Dr Sabri also points out that the gender issue in D-P interaction is typical in the Jordanian community, as seen in this Fragment 6.10:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.10	Interview	Dr Sabri	M	27	English	Muslim

" راح يكون فيه شوي صعوبة في الموضوع. "طبعاً، احنا عرب ؛ بنحكي عن رجل و إمرأة"

[Certainly, as we are from Arabic culture, we differentiate between male and female. There will be somehow a difficulty regarding this issue.]

For him, Jordanian thinking, which is part of the Arab world, is fundamentally gendered as it takes the interaction between male and female as a serious and sensitive issue. This is mainly influenced by traditional Eastern conceptions of women and men in nature which is similar to what Dr Salem discussed in chapter 4 (See Fragments 4.35 & 4.36).

Although some doctors as described above think that gender has a great influence on communication with patients, others, for example, Dr Amjad, when asked if his gender might affect his interaction with patients, he said:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.11	Interview	Dr Amjad	M	54	English	Muslim

"ما اعتقد. بالعكس أحيانًا النساء بطلبوا التعامل مع طبيب وليست طبيبة."

[I do not think so. Sometimes females request to deal with a male doctor and not a female one.]

Dr Amjad perceives from his work experience that women are sometimes not reluctant to request to be examined by a male doctor and feel more relaxed during consultations with the opposite-sex. However, when the researcher asked him "what kind of information does your patient want to hide from you?", he replied:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.12	Interview	Dr Amjad	M	54	English	Muslim

"ممكن المعلومات الشخصية جدًا، أو المعلومات الحساسة"

[Probably, very personal information, or sensitive information.]

Although one doctor said that some women did not mind being examined by a male doctor, this finding highlights that cultural and religious beliefs can be a barrier in communication with doctors of the opposite gender (Rocque & Leanza, 2015). Moreover, an understanding of cultural and religious beliefs by doctors can help to meet patients' preferences in term of doctors' gender.

6.3 The impact of patient's level of education on D-P interaction

Education is one of the factors affecting communication between doctors and patients, which is directly associated with patients' level of education as presented here. Level of education can impact a patients' level of understanding of their doctors' advice and instructions which may lead to misunderstanding and misinterpretation (Hayes et al., 2017). Previous research in Jordan has indicated that the appropriate level of education can help patients in understanding medication and increase their medical awareness (Al-Khasawneh, 2002; Bdair & Abushaikha, 2018). For example, Al-Shdayfat and Green (2012) and Akhu-Zaheya and Masadeh (2015) acknowledged the importance of sexual health education for patients in relation to discussing sexual issues, such as sexual relationships and sexual needs.

6.3.1 Perspective of doctors

In this study, seven doctors identified that the level of patients' education and lack of cooperation are two factors generally affecting patients' comprehension of their health conditions. Two of the doctors stated that there is no direct influence of patient's education on comprehension. Explicitly, from doctors' perspectives, patients are more efficient in communication and are able to provide detailed information about their conditions if their level of education is higher.

Dr Salem insists that successful communication is influenced by the level of education of the patient to the extent that patients with higher educational levels tend to engage in full understanding of their health condition and medication compliance, whereas those with a low level of education are viewed as less engaging and have difficulty in understanding the treatment and medication as clearly indicated in this Fragment:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.13	Interview	Dr Salem	M	27	English	Muslim

" في مقابلة المرضى أحيانًا بتواجهني؛ هو فرق المستوى التعليمي بين المرضى؛ فأحيانًا بيدخل عليكي مريض بكون المستوى التعليمي تبعه عالي بسهولة إنك تتواصلي معاه ، وبسهولة يمكن ياخد المعلومة اللي بدك توصليله إياها، في حين إنه مريض يكون مستوىeducation تبعه very low فبتواجه صعوبة أحيانًا في التواصل معه... كيف بده يوخذ هذا الدواء ؟ كيف يتناوله؟ شو ممكن تكون المضاعفات الجانبية اللي ممكن تنتج من هذا الدواء؟

[When examining patients, sometimes what faces me is the difference of educational level between the patients. Sometimes, a highly educated patient enables me to communicate with him easily and he can receive the information that you want to explain. While a patient whose level of education is very low, you may have difficulty in communicating with him or how he would take that medication? What would be the side effects that can be produced from this drug? How to take it?]

In Dr Ali's view, a patient's education level represents 60% of the difficulties he encounters when dealing with patients and 40% are other factors such as lack of medical awareness in the society, and lack of cooperation.

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.14	Interview	Dr Ali	M	28	Ukraine	Muslim

" مستوى تعليم المريض تقريبًا 60 بالمئة ، وما بتُحكم حسب الإنسان. ما بتحكم، في ناس متعلمة مثلًا بتتعاون معك بتستوعب بتتقبل، في ناس لأ."

[The level of the patient's education represents approximately 60% of these difficulties, but this is not the issue, you can meet educated patients who cooperate with you and understand you; however, others do not.]

Dr Ali acknowledges though that the level of education plays a role in the patient's comprehension of his treatment. He argues that the level of education impacts the understanding of medical terms; the higher the level of education, the more health awareness (See Fragment 4.26). In addition, it seems other factors play a role as well. Patients' lack of cooperation results in poor doctor-patient communication and influences the carrying out of doctor's instructions. Dr Ali explains why such patients are perceived to be uncooperative in the following Fragment 6.15:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.15	Interview	Dr Ali	M	28	Ukraine	Muslim

" من المريض نفسه، من عدم استيعاب النصائح الطبية، وعدم استيعاب للمقولات أو الأدوية المعينة، بده دواء معين "

[The patient himself is uncooperative. He does not understand the medical advice and he does not accept the medicine prescribed by the doctor. Instead, he wants certain medicine.]

Dr Ali argues that some patients requested other medications that were not prescribed by their doctors due to lack of understanding (McKinlay et al., 2014) (See more details in section 4.3).

Patients' personalities or disposition may create a challenge for doctors in not enabling them to be involved in the interaction properly; they could also feel that their high level of education gives them the right to interfere in the doctors' treatment as seen in the following example:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.16	Interview	Dr Amjad	M	54	English	Muslim

"بس أحيانًا نعاني من بعض المثقفين إللي بيشوف حاله مثقف زيادة على اللزوم يعتبر إنه فاهم، بالعكس إن المريض البسيط بيكون التعامل معه أسهل من التعامل مع المثقف زيادة، المثقف الزيادة بدو يلقنك بالتشخيص، ويلقنك بالعلاج."

[But sometimes we have to put up with some well-educated patients who think themselves excessively cultured and understand everything. On the contrary, dealing with a simple patient is much easier than dealing with the excessively cultured patient who wishes to dictate the diagnosis and treatment.]

Dr Amjad agreed with the view that a patient's education is essential. However, he insists that well-educated patients with personalities that are difficult to work with are sometimes suspicious of their doctor's motives for prescribing certain medications, in contrast, uneducated patients can be more compliant with treatment. While Dr Amjad' attitude was perceived negative and not cooperative in regard to patient education, Dr Shadi viewed education as the most important factor to improve patient safety.

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.17	Interview	Dr Shadi	M	65	English	Muslim

" طبعاً. لا شك أن المستوى التعليمي مهم جداً للمريض. المريض الذي لا يقرأ ولا يكتب، قد يستعمل بعض المصطلحات القديمة، لكن المتعلمين منهم، يختار المصطلح. اليوم النت موجود، ويعرفون صعوبة النفس، يعرفون ألم الصدر، شغلات كثيرة، ولذلك ثقافة الشخص لها دور في التسريع في فهم شكوى المريض"

[Of course. No doubt that the level of education is very important in a patient. An illiterate patient may use some old terms, but the literate one can select the appropriate term. Today due to the availability of the Internet, patients would know, such as difficulty in breathing, chest pain, and other illnesses. Thus, a person's education plays a role in understanding the patient's complaint quickly].

Similar to other doctors' argument (see Fragments 4.17 & 4.18), Dr Shadi argues that patients with a better educational background are more likely to take a collaborative role in doctor-patient communication and they can use the appropriate medical term when explaining his/her health conditions (Amp et al., 2013).

6.3.2 Perspective of patients

The level of understanding of the patients' illness, as well as prescribed medication, was explored in this finding from observation data and from patients' perspectives. In other words, their level of education impacts their understanding of health treatment and medication.

In the Arab world, the age classification for older people is from 60 years and older which is adopted by demographers (Halaseh, 2019; Khraif et al., 2015). Most of the patients in this study were educated (See Table 6.1) which may be due, in part, to the fact that most of the patients were under 60 years of age. As mentioned earlier younger patients are significantly associated

with a high level of education compared with the low level of education in older age patients (Halaseh, 2019).

Table 6.1

Basic Demographics Of The Patients

No.	Pseudonym	Age	Gender	Education	Language acquisition/ Arabic- English
1	Fadi	46	male	Higher education	Bilingual
2	Jasser	24	male	Higher education	Bilingual
3	Murad	46	male	Higher education	Bilingual
4	Muneer	41	male	Higher education	Bilingual
5	Sameh	37	male	Higher education	Bilingual
6	Ameer	32	male	Diploma	Monolingual
7	Ahmed	24	male	Secondary	Monolingual
8	Qais	32	male	Secondary	Monolingual
9	Sameeh	51	male	Secondary	Monolingual
10	Tamer	34	male	Secondary	Monolingual
11	Mamoun	65	male	Elementary	Monolingual
12	Sami	78	male	Elementary	Monolingual
13	Areen	40	female	Diploma	Monolingual
14	Ayat	35	female	Secondary	Monolingual
15	Rana	27	female	Secondary	Monolingual
16	Haleema	40	female	Elementary	Monolingual
17	Muna	42	female	Elementary	Monolingual
18	Shayma'a	55	female	Non-educated	Monolingual

All of the patients insisted that they understood their doctor’s explanation of the diagnosis and medication regardless of their level of education.

When the researcher asked Mr Ameer if he fully understood his health condition and medication after being diagnosed by Dr Nabeel (male GP, 28 years old), he reported:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.18	Interview	Mr Ameer	M	32	Diploma	Muslim

" نعم فهمني حالتي، وعرفت شو عندي بالظبط، وأعطاني الدواء المناسب، وحكالي اذا ما استفدت، بترجع لي."

[Yes, he did. I knew what my health condition is precisely, and he gave me the appropriate drug. He also told me to come back if I do not recover.]

Although Ms Shayma'a reported that there was no difficulty in understanding her GP's instruction and diagnoses, when the researcher asked her about the reason behind the miscomprehension of a doctor's diagnosis and instructions, she outlined that the level of education is the main hindrance to her understanding. In her case, in order to overcome this difficulty, she would ask the pharmacist to explain the medication, this being part of his job description.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.19	Interview	Ms. Shayma'a	F	55	Illiterate	Muslim

" محتمل يكون زيي أنا أمية. الدكتور بيكتبلي أروح أصرف العلاج ،الصيدلانية بتدريني."

[Perhaps he might be illiterate like me. The doctor writes the drugs, and I go to the pharmacist who explains it to me.]

Mr Muneer had no difficulty in understanding the doctor's diagnosis or medical instructions of dosages of drugs because they were organized well and were explained precisely step by step.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.20	Interview	Mr Muneer	M	41	BA	Muslim

"أنا بالنسبة ما واجهت أي صعوبات. أنا حسيت أنا فوت بأريحية أعطيت معلومات للطبيب شَخَصْ حالتي وطلب مني العلاج، وعلمني على طريقة استخدامه، وما كان عندي مشكلة بفهم التعليمات، لانه كانت سَلِسه و مرتبة من نفس الطبيب."

[For me, I did not face any difficulties. I felt that I was relaxed, told the doctor about my condition who diagnosed it and prescribed the drug. He told me how to use it, and I had no difficulty in understanding the instructions because they were organized well.]

Mr Muneer stated that the doctor effectively communicated with him by adopting a positive communicative style. He first explained to him his health condition to ensure that he had a better understanding of his condition, he then prescribed the medicine and provided a step-by-step set of instructions on how to take his new medication.

Although patients argued that they have no difficulty in understanding doctors' instructions and diagnoses, the researcher observed some instances where the opposite occurred as indicated in the following example:

Fragment	Date source	Doctor: Ali				Patient: Mr Tamer			
6.21	Observation	Gender	Age	Religion	Education	Gender	Age	Religion	Education
		M	28	Muslim	B.A of Medicine	M	34	Muslim	Secondary

1 Dr Ali: خذ نفس من ثمك {He is using his stethoscope on Mr Tamer's back and keeps listening to his breathing.}
[Take a deep breath, please!]
2 Mr Tamer: {Breathing}
3 Dr Ali: نفس عادي وإفلت {He keeps listening to Mr Tamer's breathing.}
[Take a normal breath and then release!]
4 Mr Tamer: {Breathing}
5 Dr Ali: المنطقة هذي أكثر؟{Pointing to the left side of Mr Tamer's chest.}
[Is this side being affected more?]
6 Mr Tamer: آه
[Yes]
7 Dr Ali: أخذت إبر قبل هالمرة؟
[Have you taken any injection before?]
8 Mr Tamer: لا
[No, I did not]
9 Dr Ali: تاع التحسس؟
[For allergy?]
10 Mr Tamer: لا، أول مرة. حتى السنة هذي ما صابتني انفلونزا
[No, I did not. This is the first time that I had experienced such thing and I did not have flu either.]
11 Dr Ali: يعني ما عندك"allergy" بشكل عام؟
[Do you mean that you generally do not have an allergy?]
12 Mr Tamer: لا مافي
[No, I do not have]
13 Mr Tamer: هذي من إسبوعين. أنا سكت عليها يومين، ثلاثة، قلت يمكن رشحة، عارض بسيط و قلت ما بدي أوخذ أدوية
[This is before two weeks ago. I did not care about it and assured myself that it is possible a cold or any small symptom which does not need a medicine.]
14 Dr Ali: طيب هسه مبدأيا بدي أعطيك تبخيرة لأنه في عندك بلغم {Shaking his head}
[All right! Now, I will place you on nebulization because you have phlegm.]

Although Dr Ali tried to explain some terms during the medical encounter (See Fragment 4.32), there were still other moments when the medical terms were not explained to Mr Tamer. For example, in this Fragment (6.21) it was found that Dr Ali tended to use the medical term

“allergy” (Line 11) without explaining it to Mr Tamer. He assumed that Mr Tamer understood the medical term when he replied: “لا مافي” [*No, I do not have]* (Line 12). It is not clear whether Mr Tamer understood the term, or was reluctant to pose the question. Therefore, it is the doctor’s responsibility to ensure that the patient understands what he is saying and to explain the medical terms to the patient no matter what his/her level of education is. In some cases, patients showed respect for the doctors and perceived themselves in a lower status in comparison; therefore, they expected the doctor to explain things to them and give them advice about the treatment.

In this regard, doctors should spend more time with patients in explaining diagnoses and ensure whether their medical advice is understood or not. Overall, after exploring a patient’s education as a means to enhance medical interaction, doctors’ comments not only focus on patient’s education but connect to the patient’s personality and motives in compliance with doctor’s prescription of medication and instructions.

6.4 Factors that hinder patients from seeing doctors

In this study, patients identified some specified socioeconomic, psychological and cultural issues as well as treatment by their doctors as key barriers that hinder the Jordanian patients from visiting doctors and affect their medication adherence as is outlined next.

6.4.1 The unavailability of medicines

Patients specified the unavailability of medicine as a barrier that may hinder them from visiting doctors. They discussed the issue of unavailability of medicine in the public hospitals which might delay their treatment. Some expressed that non-adherence to prescribed medications is associated with medical costs.

Mr Ameer expresses that the issue of affordability in healthcare is a barrier to some patients who do not hold private insurance as they have to buy drugs and they find it is very expensive. This obliges them to use alternative medicine such as herbs.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.22	Interview	Mr Ameer	M	32	Diploma	Muslim

" ممكن في ناس ما معها، فقر شديد. مبيقدرش يتعالج، حتى يصل للطبيب، و الطبيب يكشف عليه و بده ادوية و بتكللفه؛ بضطر للعلاجات الثانية ؛لأعشاب والأمور الثانية."

[Properly, some people suffer from poverty. They are unable to seek a cure to visit the doctor as the doctor would give them medicine which they cannot afford. Thus, they are obliged to use other medications such as herbs.]

Ms Areen claims, in many cases, patients who access public hospitals might find out that medicine is not freely available at the hospital pharmacies. Due to the unavailability of medicine, patients might feel obliged to buy it from outpatient pharmacies which they cannot afford.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.23	Interview	Ms. Areen	F	40	Diploma	Muslim

" في حالات كثيرة إنسان يجي على طبيب عام في الحكومة يصرف له علاج خارج، مبيكونش موجود في المركز أو البلد، يروح يصرفه من الصيدلية الخارجية، وضعه المادي لا يسمح له. بالتالي ممكن يتطور المرض ويعاني أكثر مما كان."

[Of course. There are several cases in which a patient visits a GP in a public hospital who prescribes him a drug that is not available in the public pharmacy or the village. He might go to a private pharmacy, but he cannot afford it; thus, his disease might progressively become worse than before].

From his perspective, Mr Ahmad has encountered the challenge twice that at times medicine is not freely available in the public hospital pharmacy, which forces him to buy it from outpatient pharmacies. However, he not only faces this issue, but also when medicine is prescribed in a particular brand that might not be freely available and can be found only in the outpatient pharmacies.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.24	Interview	Mr Ahmad	M	24	Secondary	Muslim

" ممكن يكون الدواء غير متوفر بالصيدلية، صارت معي مرتين، أو مثلا بيعطوك الدواء المتوفر بس من شركة ثانية، بس ممكن الشركة القديمة أحسن من الشركة هاي، هيك بيصير يحسبها، يقولك خلاص نشتريه من برا".

[Perhaps the drug is not available in the public pharmacy. It happened to me twice. Sometimes the drug is available but manufactured by another company. The patient thinks that the original producing company might be better than this company; therefore, he thinks of purchasing it from an outpatient pharmacy.]

The shortage in government medicine supply sometimes leads to frustration in patients (Jaeger et al., 2018) and limited access to health care.

6.4.2 Patients' hardships in accessing medical services

Some doctors expressed some concerns that patients tend to neglect the importance of doctor's medical advice to take their medicine or follow up on their health conditions due to some challenges. These involve transportation difficulties to visit the hospital alongside extreme poverty or lack of health services offered to people in rural areas compared to those living in major cities.

Jordanian patients cannot afford private healthcare costs for reasons not limited to the high cost of medicine but also because the majority lack private insurance. In Jordan, up to 73% of the population in Jordan is covered by the public insurance system and 6% of Jordanians are covered by the private sector covering (National health strategy (2006-2010) as cited in Zamil et al., 2012). Regarding the clinical setting in this study, the public hospital and the outpatients' clinics have their own pharmacy, which generally keep limited quantities of essential medicines. Hence, sometimes patients must purchase their prescribed medicine from private pharmacies which could be unaffordable to some. Hence, this could be a factor that can hinder patients from adhering to medications.

In investigating the reasons for medication non-adherence from perspectives of patients, three patients found public hospitals to have limited medical resources in contrast to private hospitals being very different from the public hospitals due to high-quality services, and communication

with the doctors. However, the majority of Jordanians can only afford public hospitals in Jordan. Only a few can afford private hospitals and those who have private insurance enable them to cover the costs of treatment. Accordingly, the issue of medication non-adherence results from concerns about medicine costs that prevents patients from seeing medical providers (Goff et al., 2008), only if they are seriously sick (Taiwo, 2013).

Mr Mamoun reports that financial capacity impacts patients' decisions in terms of medication preferences:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.25	Interview	Mr Mamoun	M	65	Elementary	Muslim

" يعتمد ماديًا لما يكون في مستشفيات خاصة بالذات ، بده يعني المستشفى الخاص خدمتة أحسن وتقديمه أحسن للناس"

[When a patient is financially capable, he would prefer to go to a private hospital mainly due to the quality health service provided.]

Ms Rana addresses that some patients cannot afford the medical cost of private doctors, and that is why they visit public hospitals:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.26	Interview	Ms Rana	F	27	Secondary	Muslim

" في ناس ما يقدروا يراجعوا دكاترة خاصين، بدهم دفعهم مالي، بحبوا الدكتور العام عشان وضعهم المادي."

[Some people cannot afford to pay private doctors. They do not have the money, so they go to a public doctor.]

Mr Ahmad identifies one of the important reasons that prevents them from seeking medication is the hospital's medical resources:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.27	Interview	Mr Ahmad	M	24	Secondary	Muslim

" المستشفى مش كتير مجهز؛ الإمكانيات. مثلا بضطر أروح على ..، على ..، على ..، فيه فرق كثير كبير ؛ يعني مثلا تلاقي مستشفى فيها كادر طبي بس ما فيها إمكانيات، وممكن تلاقي فيها إمكانيات زي مستشفى "س" بس ما فيها كادر طبي."

[The hospital is not well-equipped; I mean the resources. For example, I'm obliged to go to …, and …. thus, there are great differences. Sometimes you might find a hospital equipped with

health professionals but no medical resources, and in other cases, you might find medical resources, such as in Hospital X, but without health professionals.]

Mr Muneer argues from his perspective that people have different approaches in selecting a medical service provider depending on their beliefs and experiences:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.28	Interview	Mr Muneer	M	41	BA	Muslim

" في عدة أسباب أنا بوجهة نظري، في ناس يعتبروا إن الطبيب الحكومي والطبيب الخاص في اتجاهين . في ناس لو كان عنده فلوس غني بس بيحب يلجأ للطبيب الحكومي، ما بيلجأ للطبيب الخاص، لأنه يعتبر الطبيب الخاص عبارة عن إنسان مادي، يأخذ منه كشفية ، ويحوله على فحوصات مخبرية، وصور شعاعية، ويحوله على مراكز خاصة، أو مستشفيات ويدخله ؛ علشان نسبة الدفع تكون عالية. ف كثير اشخاص بقولوا انهم بلجأو للطبيب الحكومي، ويكون متخصص ولا بعرضو حالهم لعملية نصب طبية بطريقة أخرى. والعكس صحيح في ناس حتى لو ما بكون معاها مصاري بقول أنا ما بثق بعلاج الدولة، أو نوعية العلاجات؛ أنا اشتري شريط علاج كبسولات من بره فيها نسبة المادة الفعالة تركيبه أحسن من اللي في الصحة."

[In my opinion, there are other several reasons. Some people view the private doctor and the public doctor differently. Some people have money and are rich, but prefer to go to a public doctor and not a private doctor. They consider the private doctor as a materialistic person, who wants to take their money for the examination and ask for laboratory tests and X-rays. He sends them to private clinics or hospitals to get more money. Thus, many people go to a specialised public doctor so as not to become victims of a medical swindle, and vice versa, there are those who even do not have money, but they do not trust the public service or medication, so they might say "We buy a tablet of capsules from a private pharmacy that has effective ingredients would be better than those in the public hospitals".]

Mr Muneer claimed that different perspectives in selecting a medical service provider are classified according to their experiences: some are satisfied with the public health service regardless of their insurance status and others are satisfied with the private health service even if unwilling to pay medical charges. The latter's perspective is based on the belief that private health service is of superior quality than the public health service in terms of food and beverage, tangibility and physical environment (Al Khattab & H. Aborumm, 2011).

Doctors, on the other hand, acknowledge some obstacles that impede their work in the public hospital and impact patients' satisfaction, such as lack of medical specialists, drugs and some medical equipment.

De Salem argues from his perspective that GP doctors may need specialists who are sometimes unavailable:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.29	Interview	Dr Salem	M	27	English	Muslim

" إنه مثلًا أنا هون طبيب عام لس خبرة سنة ونصف أو سنتين، أحيانًا أحتاج يكون في جنبي أخصائي معين، بدي أستشير أخصائي باطني في مرض معين، بيكون هذا الحالة المرضية اللي جايتني، أنا محتاج أحولها إلى أخصائي باطني، وهذا مش متوفر."

[I am here as a general practitioner for a year and a half or two years' experience. Sometimes I need a specialist. I need to consult an internal specialist for a particular illness, but this is not available.]

When the researcher asked him how he would resolve this difficulty, he replied:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.30	Interview	Dr Salem	M	27	English	Muslim

"في هذه الحالة بنجبر إني أعطيه تحويل على مستشفى بعيد لحتى يروح."

[In this case, I am obliged to transfer him to go to another public hospital far away.]

Dr Salim mentioned another reason that forces him to refer patients to another public hospital is the shortage of medical equipment:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.31	Interview	Dr Salem	M	27	English	Muslim

" وفيه شغلة ثانية: أحيانًا أنا بنجبر انه بكون بدي صور معينة، بدي فحوصات مخبرية ما بتكون موجودة،"

[Another thing: sometimes I am obliged to ask for specific X-rays or lab tests that do not exist here.]

However, Dr Nabeel points out there is no point in patients preventing themselves from seeking medication due to the hospital availability of medicine of 90 per cent and 10 per cent for the unavailability of it:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.32	Interview	Dr Nabeel	M	28	Ukraine	Muslim

"الأدوية بالنسبة للحالات اللي بتجيلنا الأدوية متوفرة، كحالات طب عام معظمها 90% موجودة، ممكن نحتاج بعض الأدوية للأطفال الرضع نكتبها ويجوبوها من بره ويخدوها."

[The medicine is available in most cases. In general, medicine is available for 90% of the cases. We may need some medicine for infants, and we do prescribe them, and they can buy them from the pharmacy.]

The other obstacles that hinder patients from adhering to medications from perspectives of doctors are patients tend to neglect the importance of doctor's medical advice to take their medicine or follow up on their health conditions. Dr Shadi argues that patients might neglect their health conditions. In particular, an unawareness of serious health risk results from medication non-compliance. They encounter some challenges that impede their access to healthcare services because of their limited access to transportation.

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.33	Interview	Dr Shadi	M	65	English	Muslim

" نعم قلة الوقت .أحياناً قلة الأعراض للمرض ، الاستهانة بأعراض المرض، قد تؤدي بالمريض إلى اليوم بكرة، اللي بعده، وتسحب معه، وأحياناً للأسف قد تكون مضارها أحياناً خطيرة، إذا مهم جداً في علاجها. أحياناً البعد المكاني، بعد المكان، نحن هنا أحياناً في بعض المناطق، تبعد عننا 200 كيلو متر، المريض يقعد اسبوع وهو يفكر مشان يجي، لأنه لا المواصلات موجودة، ولا مركز صحي قريب عليه."

[Yes, lack of time. Sometimes the symptoms of an illness are minor, and the patient does not pay attention to them so that he might say "I will visit the doctor tomorrow or next day" and so on till his illness aggravates and turns into a severe illness. Sometimes the spatial distance prevents the patient from seeking treatment. Some regions are about 200 kilometres from here where the patient might spend a week thinking whether to go to the hospital because there is neither existing transportation nor a health centre near him.]

In alignment with Dr Shadi's argument, Dr Fadi, a male patient who works as a dentist, faces the same difficulty when dealing with patients who are unaware of their health condition. He also states that some patients might not trust doctors because they believe that doctors are not able to diagnose patients.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.34	Interview	Dr Fadi	M	46	B. A in dentistry	Muslim

" عدم ثقة، وإهمال أكثر شيء. خلاص هو راح الوجع. انا طبيب بجني مريض على العيادة وجهه متورم وحالته حاله بعطيه علاج تاني يوم يروح كل شيء، ثالث يوم ما يأخذ الدواء، وبعد شهر يرجع نفس المشكلة."

[Distrust and carelessness, no more. The pain is over. I am a dentist, and a patient might come to my clinic with a swollen face and in a worse condition. As soon he feels better the next day, he stops the treatment. After a month, he suffers from the same problem.]

Mr Jasser thinks that he can control the pain; however, the symptoms are too risky to ignore.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.35	Interview	Mr Jasser	M	24	Higher education	Muslim

"بنكابر على حالنا احنا ، بينحكي هالوجع عادي يوم يومين بروح. ما نروح إلا وحنا مستوبين."

[We thought we could bear the pain; we tell ourselves that it will last for one or two days. We do not visit the doctor until it gets worse.]

Mr Sameeh confesses that he does not take his medication correctly as prescribed by his doctor as a result of medication non-compliance:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.36	Interview	Mr Sameeh	M	51	Secondary	Muslim

" أنا علاجي ما انا مأخذه بالشكل الصحيح حاليا، أنا علاجي ما بأخذه صح حاليًا، أنا بقفز عنه"

[Right now, I am not taking my drug in the right way. I used to skip taking it.]

It is clear in the above fragment that patients may neglect the importance of doctor's medical advice and the prescribed medication as it's perceived unnecessary for maintaining health.

6.4.3 Word of mouth

Health care aims to improve patient health outcomes, higher patient retention, and reducing costs (Fiala, 2012). When patients receive good quality health service, this leads to their satisfaction (Naiji & Hong, 2016) and willingness to make positive word-of-mouth recommendations to friends and colleagues. Trust in doctors is usually based on recommendations of family and friends through existing relationship networks (Wang, 2010).

Many patients mentioned that they would most likely visit a particular doctor recommended by friends or relatives based on their previous hospital visit or due to his well-known, outstanding medical expertise which is verified by outstanding accuracy in diagnosis and physical examination. For example, Ms Areen explained that they could easily find doctors

with excellent reputations and professional experience because of word-of-mouth recommendations being they are from the same local area.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.37	Interview	Ms. Areen	F	40	Diploma	Muslim

" والله احنا كلنا من نفس المنطقة ؛ بنعرف الدكتور الشاطر من الدكتور اللي مش شاطر."

[I swear to Allah, we all from the same region and we know the professional doctor and who is not].

Mr Jasser points out that past medical experiences of other patients have an effect on attitudes in making the decision on which speciality to choose.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.38	Interview	Mr Jasser	M	24	Higher education	Muslim

" نحن عندنا مثل بينحكى: "أسأل مجرب ولا تسأل حكيم أو الطبيب، نحن بنسوق فيها الفهم علشان هيك بتأثر فيها العوامل."

[In our community, we used to use a proverb "Ask someone who has experience rather than a physician"; therefore, such factors impact us.]

Mr Ameer feels that what makes him trust a doctor is his kind personality and professional reputation based on word-of-mouth recommendations. This fosters healthy, therapeutic relationships that promote healing and recovery.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.39	Interview	Mr Ameer	M	32	Diploma	Muslim

" أنا شخصية الطبيب بتهمني أنا كشخص ، وسمعته العملية بتهمني كمان وتعامله مع المريض تعامل أخوي كأنه ابنه."

[I care about the doctor's personality and his solid reputation. How he deals with the patient as if he is his brother.]

Dr Sabri emphasises that a patient might request a particular doctor distinguished by his medical expertise based on others' word-of-mouth recommendations.

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.40	Interview	Dr Sabri	M	27	English	Muslim

" برضو يمكن هون الأشياء اللي أنتو شفتوها أكثر شيء، بيحيكيك إن أنا بدي الدكتور الفلاني، الدكتور الفلاني مش شاطر، الدكتور الفلاني شاطر، يعني بتكون الأمور شوية"

[Perhaps you have seen the most frequent thing here is that a patient might come and insist to see a certain doctor due to his professional reputation and the other is not.]

Based on the above, patient's satisfaction and trust in physicians mostly relied on word-of-mouth communication, and trust was often initiated on the basis of recommendations of family and close friends. Hence, improved patient satisfaction can lead to improved D-P relationship and communication.

6.5 Limitations in the treatment of patients

Patients were asked to share some opinions on how they would like their doctor to deal and communicate with them. Thus, in this section, patient experiences and expectations will be described.

6.5.1 Patients' experiences and expectations

Analysis of video data showed that doctors were friendly and polite in their interaction with patients mostly using positive non-verbal behaviours such as eye contact (See 5.3.1) and smiling (See 5.3.2) despite their expansive body orientation throughout the medical consultation. There were some instances of patients being interrupted and the use of dominant high-pitched voice.

6.5.1.1 Active listening-ear

Patients viewed the relationship as one displaying an active, listening role, caring and taking an interest in them. They felt the need for their stories to be heard and firstly to be respected as humans.

Ms Haleema valued doctors' listening to her stories, which was confirmed when the doctor accurately addressed her concerns and needs. She wanted her doctor to spend more time and to provide detailed and comprehensible explanations.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.41	Interview	Ms Haleema	F	46	Elementary	Muslim

" يكون أسلوبه كويس، أسلوبه يفهم، أسلوبه يعني يستمع لنا؛ مش يعني يكتب ها الوصفة ويطلع ع السريع. يستمع شو أنا بحكي له، شو مرضي، إشي زي هيك."

[His communication style should be good to help me to understand him. He should listen to us, which means not just writing the prescription and leave. He should listen to what I explain concerning my illness and something like that.]

As noted from Ms Haleema's feedback, listening to her story was associated with greater satisfaction (Henry et al., 2012; Naiji & Hong, 2016), this can foster D-P relationship when doctors are willing to engage actively in listening to patients (Brennan, 2016). In fact, limited time can be a reason why doctors sometimes fail to communicate with their patients (Mulyana, 2016). A particular aspect of care for Mr Mamoun is when a doctor takes an interest in his treatment; this should be associated through active listening while examining his body.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.42	Interview	Mr Mamoun	M	65	Elementary	Muslim

" الدكتور لما تيجي يفحصك يهتم فيك، ويستمع لك."

[The doctor should care about you and listen to you while examining you.]

For other patients, for example, Ms Ayat (See Fragment 5.16) and Mr Sami (See Fragment 5.15), listening should be accompanied by a smiling face and the use of humour which is perceived as being friendly and caring.

6.5.1.2 Mutual respect

In addition to active listening, patients appreciated being treated with respect as a necessary component in effective D-P interaction.

Mr Tamer identifies respect as reflective of humanity. Considering the patient as a partner in the process of discussing possible treatment options shows care and interest. He also values it when the doctor explains things clearly using plain language or the local dialect when interacting with him.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.43	Interview	Mr Tamer	M	34	Secondary	Muslim

" يعني يتعامل كطبيعته الدكتور؛ يعني إحترام متبادل وبعدين يسمعلي وإسمع له، شيء أكيد. يعني خلينا نحكي بلغتنا الطبيعية (اللغة البلدية)."

[I want him to deal with me naturally as he is a human; I mean with mutual respect. Then he should listen to me, and I should listen to him too. Let us say: To communicate with each other in our natural language, our colloquial language.]

Mr Jasser emphasised that doctors should demonstrate respect when dealing with patients and remain calm during the interaction. Moreover, his doctor needs to display a high level of cooperation in order to satisfy his needs and expectations.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.44	Interview	Mr Jasser	M	24	Higher education	Muslim

"الاحترام، الهدوء، التعاون."

[With respect, calmness and cooperation.]

As shown, patients' positive experiences generally relate to being treated with respect, thus satisfying their needs and expectations.

6.6 Patients' perception of communication with doctors

The patients were not asked questions about their satisfaction during consultations as the satisfaction was better observed by the researcher rather than discussed. Patients were asked if they ever felt that the doctor judged them unfairly or interacted with them with disrespect because of their gender, level of education or cultural group. Hence, this question will be addressed in the interviews as it analyses patients' satisfaction or dissatisfaction with their doctor's behaviour during the medical consultation.

On the other hand, doctors were asked to tell any experiences which show patients who refused to interact with them as well as the reasons behind their refusal. This section will be addressed in terms of patients' dissatisfaction.

6.6.1 Patients' satisfaction

Eleven patients were satisfied with their previous treatments and their communication with the doctors. Their satisfaction was associated with doctors' explanation of health treatments and their good conduct. For example, Ms Shayma'a is apparently satisfied by the doctors' explanation and treatment which was to a level of understanding for her.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.45	Interview	Ms. Shayma'a	F	55	Illiterate	Muslim

" لا، ما مرت علي. كلهم بجي زيك هيك، الي علاج بيكتبوه ، وبيفهموني عليه، واللي ما بعرفه الصيدلانية بتدلني عليه. كويس الحمد لله."

[No. Never happened to me. I usually come to them like today, and they prescribe the medicine to me. They do explain it, and if I misunderstand anything, the pharmacist would explain it to me. Everything is good, Praise to Allah.]

In Mr Tamer's case, no dissatisfaction has occurred throughout the years and made him feel disrespected based on his gender, race or cultural background.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.46	Interview	Mr Tamer	M	34	Secondary	Muslim

" لا، بحياتي كلها الحمد لله ما مر شيء من هذا."

[No, I have never experienced this in my entire life, thank God.]

Based on the above, the doctor's conduct in communication may significantly influence the patient's satisfaction. Hence, doctor's explanation of health treatments and good conduct attribute positively to the patient and should therefore be regarded as important aspect in D-P communication.

6.6.2 Patients' dissatisfaction

Interviews revealed that patients' dissatisfaction was associated with doctors' judgment based on a patient's status or cultural group and also hardships. The other doctors' interviews showed that communication became difficult because some patients refused their treatment due to

cultural barriers. Therefore, this section will be divided into two subheadings: Patients' perspectives and Doctors' perspectives.

6.6.2.1 Patients' negative experiences

Interviews revealed that nine patients felt dissatisfied in their poor experiences of interaction with their doctors. For example, Ms Rana reports from her experience that doctors would deal with patients based on the reputation of their cultural group.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.47	Interview	Ms Rana	F	27	Secondary	Muslim

" أكيد، إذا كنت من قبيلة ذات جاه، أو مستوى عالي في المنصب؛ الاهتمام أكثر، وأكثر."
[Sure, if I belong to a respectable tribe or occupy a high status, the attention would be more considerable.]

As an example, from her negative experience, she explains:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.48	Interview	Ms Rana	F	27	Secondary	Muslim

" مرة كنت رايحة للمستشفى، وفي كان ناس بعرفنا ذات رتبة عالية، مشانا واستقبلنا أجمل ترحيب."

[One day, I went to the hospital, and there was someone of high status who knew me. He helped me to get an appointment with the doctor who welcomed me so much.]

Ms Rana clarified that she could not get access to the doctor without an intermediary who occupies a high status that is recognised by the doctor.

Ms Ameer also confirms that if you are recognised for your status or have a distinguished reputation in your tribe then there is a 100 per cent chance you will be very well cared for.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.49	Interview	Mr Ameer	M	32	Diploma	Muslim

" ممكن لو كنت ابن شخصية معينة في المجتمع، أو ذو منصب معين راح تكون العناية فائقة، مئة بالمئة؛ الإجراءات سريعة جدًا."

[It is possible if you are a son of an influential person in the community, or with a specified high status, attention would be super 100 per cent; the procedures would be speedy.]

Another patient, Mr Muneer describes having previous negative experiences seeking health care. His doctor assumed that he would not understand a technical term, but in fact he did. As a result, Mr Muneer became dissatisfied and left without resolution.

Fragment	Date source	Patient	Gender	Age	Education Level	Religion
6.50	Interview	Mr Muneer	M	41	BA	Muslim

" نعم، أنا صدفت معاي من حوالي 14، 15 سنة. كنت تعبت كتير؛ نفس الحالة هذي صابتني، أهلي أخذوني بالليل عالمستشفى وعندي حرارة عالية. فلما فوت على طبيب الطوارئ، لاحظته حكى كلمة إنجليزي . حكى خلاص، هذا Patient NA يعني أعطوه ولا إيشي و روحوه! فالدكتور حكى مصطلح إنجليزي، انا كنت عارفه انه المريض إللي جايلك أعطيه ولا إيشي إبرة صوديوم؛ إبرة ميه عادية على أساس إنه أعطاني علاج؛ إنه مش مريض جاي. فقلت: دقيقة يا دكتور، أنت حكيت الكلام هذا، وأنا حرارتي متجاوزة الأربعين، وصدري مش قادر أتكلم، وشو بتقوله؟ قال هذا بيني وبين الممرض. لكن أنا فهمت اللي حكيته، وصار شجار بيني وبينه. ثاني يوم حس إنه غلطان، حس إني فهمته ف إيجى وإعتذر."

[Yes. It happened to me 14 or 15 years ago. I was unwell like from what I suffer today. My family took me to the hospital because I had a fever. I noticed that the emergency doctor spoke an English term to the nurse. He said; "This patient is NA" which means "Do not give him anything or give him an injection of sodium and let him leave". I said to him "one-minute doctor! Why did you say that? My temperature exceeded forty degrees with pain in my chest that I could not speak". He replied "This is between the nurse and me", I answered him; "but I understood what he said". Next day he felt that he was wrong as I understood his intention, so he came to me and apologised.]

The researcher asked Mr Muneer about the reason behind the doctor's carelessness, and he replied:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.51	Interview	Mr Muneer	M	41	BA	Muslim

" قال لي إنه جاءت له خمس حالات مثل هذه، وحسيت إنك كمان السادس مثلهم."

[He said he had examined five cases and he thought I was similar to them.]

To illustrate, the use of medical jargon by the doctor could be a challenge for some patients but not in the case of Mr Muneer as he is educated. Doctor's switching to English may be used to prevent the patient's understanding; however, it increases the risk of adverse reactions to the medication. It is also evident that the doctor's communication style impacts patient satisfaction and outcomes in medical consultations (Fawole, 2014).

6.6.2.2 Evaluation of doctors' satisfaction

The interviews showed that only one doctor felt that a patient was dissatisfied. However, eight doctors stated that patients who refused treatment based their reasons on cultural or religious beliefs. For example, Dr Salem faced the difficulty of physically examining a female patient who does not want to receive treatment because of her veil, which entirely conceals her face.

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.52	Interview	Dr Salem	M	27	English	Muslim

" مريضة أنا جتني وكانت مُخمرة لابسة نقاب. فبتشكي من إلتهاب بالحلق وإنه في ألم لما بتبلع، فطلبت إني أفحص حلقها، فرفضت إنها ترفع النقاب؛ يعني عالجني من دون ما تشوف حلقي. هذا من المواقف اللي كانت بصراحة أنا تضايقت منها. أنا زعلت لأن أنتِ داخلة على طبيب المفروض إنه بتشكيلي. أنا صعب أكشف غيبا."

[A female patient came to me and she was wearing a veil. She was complaining from a sore throat. I asked to examine her throat, but she refused to raise the veil. She said; "Examine me without seeing my throat". This is one of the situations that made me depressed because she came to see a doctor that was supposed to whom she complained. It is hard to examine blindly!]

When the researcher asked Dr Salem if this female patient would take off the veil in the presence of a female doctor, he replied:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.53	Interview	Dr Salem	M	27	English	Muslim

": لو دخلت على طبيبة بتكشف عن وجهها، بس أنا في تلك اللحظة عندي ممرضة لما طلبت إني أفحصها، ومع ذلك ما رضيت. وبتفرق هذه برضه من مكان إلى مكان، إذا انتقلنا للمدن الرئيسية، بكل بساطة تطلبها تفحص جسمها بتفحص بكل سهولة. هنا في صعوبة مع البعض؛ مش الكل تلمس جسمها."

[Yes, she would take off the veil. At that moment, I had a female nurse when I asked to examine her, nevertheless, she refused. It differs from place to place. If we move to the main cities, simply you might examine her body without any difficulty. Here we face difficulty with some but not all.]

It is essential for doctors engaging in physical examinations of female patients (particularly those wearing a veil) to limit the exam to what is necessary only and to ensure that another individual, preferably a female chaperone is present (Tackett et al., 2018).

Dr Shadi finds other factors that lead to the rejection of certain medications which are cultural traditions and lack of health education.

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.54	Interview	Dr Shadi	M	65	English	Muslim

" اذكر مريضة رفضت نوع معين من العلاج و هو كان بخاخ لأزمة التنفس"

[I remember a female patient who refused a certain type of medication which was an asthma spray.]

The researcher asked what made her refuse the medication, Dr Shadi replied:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.55	Interview	Dr Shadi	M	65	English	Muslim

" الاول انه كانت تعتقد انه خطير. والثاني عيب استخدام "Spray" "

[For two reasons, the first she thought it was risky and the second reason she thought it was a shame to use the asthma spray.]

It is clearly seen how culture has influenced this female patient, including her values, thoughts, behaviours, and emotional reactions (Lu & Wan, 2018). However, it is not only culture that influenced her social behaviour, but also her low level of health education that impacted her understanding of treatment options. Therefore, health education can improve the patient's behaviour in clinical interaction (Acquah, 2011).

Dr Asma points out another reason for a patients' refusal of treatment or request to be examined by a particular doctor, perhaps one they met the first time and trust.

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.56	Interview	Dr Asma	F	27	English	Muslim

" آه موجود. مرات إنه المريض دخل أول مرة على هذا الدكتور، فبيحب إنه يكمل معاه. من جهة يعني إنه أول دكتور شافه ومن جهة ثانية إنه حب يكمل العلاج معاه."

[Yes, that still happens. The patient sometimes chooses a particular doctor for the first time, and he would like to continue his treatment with this doctor.]

In light of the above Fragments (6.52, 6.53,6.54, 6.55 & 6.56), cultural and religious beliefs may make it particularly difficult for doctors to reach agreements on decisions about healthcare issues and may negatively impact health outcomes. Therefore, cultural competence is a powerful and necessary strategy for appropriately dealing with cultural barriers including knowledge about patients' social values and beliefs (Magaña, 2019; Rassool, 2014).

6.7 Traditional medicine

It is common that traditional medicines are popular in Jordanian communities because it is considered a part of the Jordanian culture (Wazaify et al., 2013). Muslims use herbal medicine such as black seed, special foods (e.g., honey) or other practices such as cupping (Tackett et al., 2018), which includes heating or oiling a coin while rubbing the body which may produce red bumps on the affected area; this can be misleading to doctors and lead to a possible misdiagnosis (Galanti, 2014). Doctors in this study were asked about how the beliefs in traditional medicine and customs affect the treatment, progression of illnesses and relationship with the patients. Furthermore, patients were asked how treatment by traditional medicine and their practices affected their relationship with the doctor if at all. Consequently, two concepts emerged from the analysis of the participant's point of view and experience: Patients' perception of traditional medicine and traditional medication as a barrier.

6.7.1 Patients' perception of traditional medicine

Sixteen patients out of eighteen showed that they believed that social beliefs in traditional medicine and practices have a significant impact on their relationship with the doctor and healthcare outcomes. They described some barriers they encountered when they visited their doctors and from the experiences of others, including friends or family members. However, the other two patients claimed that these barriers had no impact on their relationship with the doctor and healthcare outcomes.

One of the patients, Mr Mamoun reports from his life experience that traditional medicine led to ineffective communication with his doctor after this medicine failed to cure him.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.57	Interview	Mr Mamoun	M	65	Elementary	Muslim

" آه، مر علي. التجربة مرة انكسرت إيدي ورحت على مجبر جبرها. ورحت بعدين على دكتور، قال: يا عم ما بصير تروح على المجبر، وطب العرب هذا. اتضايق الدكتور و قال ما بيصير! لازم إنك جيت طوالي علي."

[Yes, I have experienced such a thing. Once it happened that my hand was broken, and I went to a bone splinting healer. Then I went to a doctor who said; "You should not have gone to a bone splinting healer and use the Arab medicine". The doctor became annoyed and said; "You had to come directly to see me!"]

Mr Mamoun reported that in a previous consultation he had a conflict with a doctor and the doctor was dissatisfied with the use of traditional healing. The researcher investigated the reason behind the doctor's dissatisfaction with Mr Mamoun in the following Fragment (6.58):

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.58	Interview	Mr Mamoun	M	65	Elementary	Muslim

"الجبيرة مش مظبوطة. قال: يا عمي ما بيصير هيك.لازم إنك جيت طوالي علي"

[The splinting was not right. He said "You should not have done this! Instead, you should directly come to me"]

It is clear that the doctor was dissatisfied with Mr Mamoun as the treatment carried out by the traditional healer only exacerbated his health condition.

On a similar note, Mr Muneer describes challenges others encountered because of treatment by traditional medicine and how this impacts their relationship with their doctors.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.59	Interview	Mr Muneer	M	41	BA	Muslim

" نعم. مرت عليه عدة حالات بالذات حالات الكسر. الأصدقاء مثلا عدة حالات جبائر، ياخدوها ويرجعوا يلاقوا إنه الجبيرة غلط وإن يضطوروا يكسروا رجله مرة ثانية مكان الكسر. وأحيانًا في واحد في الكوع عنده مشكلة واضطر لتدخل جراحي، فتحوا له من عند الكوع رجعوا ركبوه مرة تانية."

[Yes, I have seen several cases, especially bone fractures. There are several cases from my friends who were treated by a splint and later they found out that it was not treated correctly. Therefore, doctors had to break it from the same place as the fracture. Someone also had a problem in his elbow who was treated by a splint and had to go to doctors for surgical interference.]

Patients also argued that they prefer to engage in alternative treatment such as herbal remedies before visiting the hospital (Welz et al., 2018). For example, Mr Tamer states that he prefers to try herbal medicines first before taking any other remedy.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.60	Interview	Mr Tamer	M	34	Secondary	Muslim

" هذا يمكن بداية العلاج إحنا بنختار الطب البديل؛ هيك طبيعة المنطقة هذه."

[We choose alternative medicine first. It is the culture of our region.]

Mr Tamer's argument also clearly demonstrated the significant impact of tradition and positive experiences of the community on their first treatment choice.

Similar to Mr Tamer, Ms Areen prefers to engage in various herbal medications first before consulting a doctor.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.61	Interview	Ms. Areen	F	40	Diploma	Muslim

" العلاجات اذا ما كان جزء كبيرمنها عن طريق الزهورات، والأعشاب يعني .اذا بتروحي لعلاجات الكحة هي زهورات. أنا أحيانًا بفضله."

[The most effective treatment - if it was not a significant part of it - is by using flowers and herbs. We use flowers for cough. I sometimes prefer them.]

6.7.2 Traditional medication as a barrier

The majority of general practitioners experienced difficulties during their interaction with patients as some patients with a chronic illness use remedies such as sage for treatment for diabetes, toothpaste or oil for burns and olive oil for ear infections and might arrive at the hospital when their illness is at a worsening stage. Their beliefs on the use of herbal medicine only exacerbated their condition. While the researcher was in the waiting room, she witnessed Dr Nabeel's nervousness while communicating with an older woman (probably in her early 60s). Dr Nabeel reveals his dissatisfaction in the following fragment:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.62	Interview	Dr Nabeel	M	28	Ukraine	Muslim

" هذا حاجز. قبل شوية قدامك، مريضة سكري مرتفع كثير السكري عندها، موقفة العلاج و ماخذة طب أعشاب، او طب عرب. وحولناها على دخول. رح تدخل أقل شيء يومين ثلاثة مراقبة، وترجع توخذ علاجها."

[This is a barrier. You have seen a little earlier we referred a case of a diabetes patient with a high level of sugar. She stopped her medicine and took herbal medicine or Arabic medicine.

She has to be hospitalised for at least two days under observation, and she has to retake her prescribed medicine.]

According to Dr Nabeel, this diabetic patient refused to comply with a recommended therapeutic regimen and put her health at risk with adverse serious outcomes resulting from using herbal medicines which led to the decision to hospitalise her for a couple of days under observation. Dr Nabeel provided the reason for taking such herbal remedies in this Fragment:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.63	Interview	Dr Nabeel	M	28	Ukraine	Muslim

"هو عدم ثقة. يعني غالبا معضمهم بستخدموا شغلات زي هيك كثير، اعتقادهم بالاعشاب اكثر"

[It is because of a lack of trust. Most patients use such things. They strongly believe in herbs.]

As Dr Nabeel mentioned, lack of trust in modern medicine and looking for traditional treatment was the most common reason among patients for using herbal remedies.

Although the use of herbal remedies is widely used due to its safety, the ingestion of herbal supplements may adversely impact chronically ill elderly patients (Wazaify et al., 2013) and it might impact the quality of the doctor-patient relationship. The use of traditional medicines as an alternative treatment may be attributable to different perspectives. Some believe in traditional medicines due to its effectiveness, availability at low cost, easy accessibility; and word-of-mouth recommendations by friends and relatives (Kasole et al., 2019). However, there are some that consider traditional medicine as unsafe, causing adverse effects on the body and moreover; causing premature death (Ekor, 2014; Fatima & Nayeem, 2016; Galanti, 2014). Western-trained doctors have more reservations rather than endorsements over its use. The main rationale amongst these doctors is the lack of evidence for effectiveness (Maha & Shaw, 2007). For example, the use of Echinacea purpurea could lead to serious outcomes for transplant patients (Wazaify et al., 2013). Hence, there is a need to enhance the D-P relationship to overcome this challenge.

Dr Amjad is generally worried about patients' treatments by alternative medicine, which leads to his dissatisfaction with them as it affects their health outcomes.

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.64	Interview	Dr Amjad	M	54	English	Muslim

" حقيقة نعاني من الطب البديل هذه الايام .في بعضهم بثقوا بالطب البديل. الأعشاب أو ممارسة نوع رياضة؛ هذا الطب شائع وموجود. في بعضهم بقول ما بدي علاجات، طيب انت جاي عند طبيب وبده يعطيك علاج . نعاني أحيانًا من هذه المشكلة، أحيانًا يأتي لنا مرضى ماخذين طب بديل وفي حالة تسمم."

[The fact that we suffer from alternative medicine these days. Some patients do still trust in alternative medicine. They take herbs or practise a sport. This medicine is common and still exists. Some of them would say; "We do not need drugs"; then why do you come to see the doctor?! We sometimes suffer from this problem. Sometimes some patients come to us with severe poisoning after getting treated by an herbalist.]

Dr Salem argues that he faces difficulty, particularly with chronically ill patients who use herbal medicine without first consulting doctors (Alghamdi et al., 2018). The primary reason behind his opposition to treatments in traditional medicine is that this type of medicine needs a powerful and in-depth assessment of its pharmacological qualities and safety issues (Firenzuoli & Gori, 2007). People generally consider herbal remedies as being natural and therefore safe and use them as alternative medicine. However, a study by Letsyo et al. (2017) showed the presence of toxic pyrrolizidine alkaloids (PA) in a total of 60 per cent in 70 herbal products, such as honey, which could lead to liver damage.

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.65	Interview	Dr Salem	M	27	English	Muslim

" خصوصا مرضى الأمراض المزمنة بيفضلوا يروحوا يتعالجوا بالطب الشعبي القديم اللي هو فعليًا أنا لا أقتنع فيه نهائيًا، وما درست شيء في الطب يدرس فعالية هذا الشيء."

[Especially chronically ill patients prefer to be treated by traditional medicine which actually I am not convinced of it at all. I have not studied in medicine the efficiency of such a thing.]

Dr Salem highlights patients' lack of awareness, particularly those with a chronic illness and their limited knowledge of the potential adverse effects of herbal products which can lead to

challenges when dealing with them. He is neither entirely convinced by this alternative medicine nor completely sure about its efficiency and safety in medicine.

In this study, although doctors have good intentions for their patients, they need to use appropriate oral communication styles and to demonstrate good customer service skills expected of a professional health service provider.

Barriers in effective healthcare can result from treatment by traditional medicine and lead to a communication gap between doctors and patients (Tackett et al., 2018). It is evident that the cultural practice (See Fragment 6.60 & 6.61) of patients can interfere when choosing traditional treatment options and impede D-P interaction. This will require a doctor who is culturally competent so that he/she can understand these practices and provide appropriate healthcare to patients.

6.8 The impact of culture on communication & seeking health

Culture is defined as "an accumulated pattern of values, beliefs, and behaviours, shared by an identifiable group of people with a common history and verbal and non-verbal symbol systems" (Neuliep, 2015, p. 17). Thus, it is not inherited; it is often concentrated on the beliefs and values of individuals or groups. It can dominate their behaviour in all aspects of human life. Moreover; it influences the way they communicate and their reaction in a given situation. In essence, health communication is always negotiated on how individuals present their identities based on their cultural backgrounds and cultural practice. Therefore, the cultural background can influence an individual's health.

The participants identified specific cultural issues, including withholding relevant, sensitive information because of embarrassment of taboo topics and the presence of a third party that

creates a barrier when it comes to patient privacy, which influenced communication between patients and doctors.

6.8.1 Taboo topics

Taboos according to Müller et al. (2014) are "prohibitions on behaviours, both acts and utterances, that a particular society forbids or encourages its members to avoid" (p. 1523). In the case of this research, a great deal of the above definition was observed, almost all of it referring to sexual health topics and body parts (Napoli & Hoeksema, 2009).

Some patients reported from their experiences or from other's experiences, including friends or family members, that extreme shyness might prevent them from actively seeking out a diagnosis for their illness. Doctors reported from their experience that patients, particularly females, seem reluctant to disclose health conditions of a sensitive nature that may be too embarrassing to them. Therefore, this section will focus on two subheadings: 1) Experience of embarrassment by patients and, 2) Communication and Taboo.

6.8.1.1 Experience of embarrassment by patients

Patients identified that they feel uncomfortable when their body is being examined or when disclosing sensitive information (Taber, Leyva, & Persoskie, 2015) as was discussed by doctors in chapter 4. Female patients may also feel shyness when their bodies are examined by male doctors (See Fragments 4.36, 4.37 & 4.38).

Ms Ayat experiences some level of embarrassment when she has to share sensitive information directly with her male doctor.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.66	Interview	Ms Ayat	F	35	Secondary	Muslim

" النسائية. احيانا لم بجي يسألني بنحرج اجاوب خاصة الاشياء النسائية ، بتعرفي! اما لما تكون دكتورة بقدر اجاوبها او انه احكي معها ."

[Female issues. Sometimes when the doctor asks me questions related to female issues, I feel shy to answer. You know! However, I feel comfortable being examined by a female doctor. I can speak with her freely.]

Although Mr Tamer expressed that the doctor's gender has no effect on his interaction in the medical interview, he states that his decision not to disclose health information is influenced by the nature of the illness.

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.67	Interview	Mr Tamer	M	34	Secondary	Muslim

" حسب طبيعة المرض اللي بروح عليه. أمراض حساسة؛ الأمور هذه فيها نوع من الصمت مثلًا، أو أتجنب مرات حتى أروح على الدكتور مثلا".

[This depends on the nature of the illness I suffer. For example, I would have remained silent when talking about sensitive issues, or I sometimes avoid visiting the doctor because of this reason.]

These responses illustrate the varied nature of patients' communication with the doctors which depend on the doctors' gender, and may also depend on topic-sensitive issues related to cultural beliefs. Patients may hold sensitive health matters from their doctor that could lead to adverse serious outcomes.

6.8.1.2 Communication and Taboo

Doctors asserted that patients deliberately do not disclose information, particularly female patients, when related to embarrassing or sensitive topics. For example, Dr Nabeel explains that females are too embarrassed to discuss sensitive topics: this bothers him.

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.68	Interview	Dr Nabeel	M	28	Ukraine	Muslim

" مع الجنس الأخر، شيء أكيد يعني. بعضالاحيان مثلا: تأتي بألم في البطن، لكن بتكشف إنه ألم بشكل دائم بيصير عندها لما تجيها الدورة الشهرية وبتخفيه و بتضيع وقتك ووقت المرضى اللي بستنوا فيك؛ عشان إنها محرجة إنها تحكي."

[With the other gender, certainly Yes. Sometimes, for example, a female comes to me with a pain in her abdomen, but I may discover later that it is a permanent pain accompanied to the menstrual period, but she does not disclose that. So, she might waste my time and other patients' time who are waiting for me because she feels embarrassed.]

Dr Nabeel expressed his dissatisfaction with females who are less likely to disclose sensitive information which may be necessary for making an accurate diagnosis and treatment.

Speaking of sensitive issues, female patients would be more comfortable disclosing to a female doctor than a male. Dr Sabri, another GP, shares his past experience regarding a patient's disclosure revealing how they are reluctant to disclose accurate information and hinder it.

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.69	Interview	Dr Sabri	M	27	English	Muslim

" لسه في حالة جت إمبارح أو أول إمبارح، علشان أحكي لك المعلومة مش بس إخفائها عني، وإخفائها عن الأهل اللي تبعين المريض، المريضة إجتنا psychiatric more than dizzy ...)، مغيبة ودايخة ، طيب ماشي، حد يفهمنا شو زعلانة، معصبة، تعبانة. المشكلة المريضة معندهاش شيء، كل المؤشرات الحيوية طبيعي ، كل شيء طبيعي ، تخطيط القلب طبيعي."

[Yesterday, a case came to me, which was not about withholding information from me but also the family. A female patient came, and her case was psychiatric more than dizzy. I asked "if anyone can tell me what happened to her", "was she upset?" or "nervous?", or "tired?". Everything was normal, and all biological indications were normal, and even her electroencephalogram (EEG) was normal.]

When asked why this female patient was reluctant to share her condition, Dr Sabri explained:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.70	Interview	Dr Sabri	M	27	English	Muslim

" إجت صحبتها تحكيلي "دكتور بيني وبينك" قلتلها اتفضلي؛ قالت: "المريضة مأرجلة، وبدهاش جوزها يعرف إنها بتأرجل"

[A friend of hers came and informed me that the patient smoked narghile and she did not want her husband to know about that.]

Another potential reason why patients might not disclose information is in the case of domestic violence, particularly when patients present with vague medical complaints which are not evidently related to the abuse (Gallahue & Melville, 2008). Dr Asma explains:

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.71	Interview	Dr Asma	F	27	English	Muslim

" بس الأشياء اللي تكون اجتماعية يعني مثلا أمور العنف الأسري. مثلاً تيجي وحدة إنه فيها كدمات في رجليها، وهيك بتقولك مثلاً وقعت."

[Only social matters such as domestic violence. When a woman comes to me with bruises on her legs, she would not tell me the truth. She might say "I fell".]

Similar to Dr Asma, Ms Ayat confesses that she would be more reluctant to disclose to her doctor when her husband abuses her:

Fragment	Date source	Patient	Gender	Age	Education level	Religion
6.72	Interview	Ms Ayat	F	35	Secondary	Muslim

" مثلا لما اكون متضايقة او متكاتلة مع زوجي او مشكلة إجتماعية. انا عندي صمام بالقلب و ممنوعة من الزعل مثلا، و باجي عندهم متضايقة و مخنوقة و هم لحالهم بعرفوا. بسألوني "في زعل؟"؛ بحكيلهم: "اه" ، في زعل"، بس ما بوضح الهم شو و من مين زعلانة ."

[For instance, I have a cardiac valve and advised not to get upset. When I am upset from my husband, or any other social problems, I come to the hospital, and they ask me "Are you upset?", I reply; "Yes, I am upset" but without telling them any other details about the reason or who distressed me.]

As shown earlier, patients' disclosure of sensitive or embarrassing information depends on their evaluating the risks and potential benefits (Acquah, 2011).

6.8.2 Presence of a third party

Another subtheme about potential reasons why patients might not disclose or share information is the presence of companions and their interference which is another problematic area in D-P communication. Three doctors reported that patients are discouraged from disclosing health conditions when in the presence of companions. Their discouragement came from lack of privacy during medical consultations. For example, Dr Asma notes that patients, particularly females, might be uncomfortable sharing their conditions with her when a companion is present.

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.73	Interview	Dr Asma	F	27	English	Muslim

"في تدخلات، والصراحة يعني خاصة لما الواحدة تيجي هي وحماتها، أو هي وأي حد من طرفهم. مافيش خصوصية الصراحة بالضبط أنه لازم تدخل معاها، وبيكون في تدخل، وممكن إنه حتى هي بتسأل أكثر من المريضة نفسها."

[There are interventions from companions especially when a female comes with her mother-in-law or anyone from her family in law. There is no privacy at all because she has to enter the

examination room with her and interfere in everything, and even, she may ask questions more than the patient herself.]

Ironically, Dr Asma argues that privacy in high-context culture is merely neglected because of societal norms and rituals. In a collectivistic culture, although family involvement in medical decision making is expected, some patients may value independence from their families and prefer more autonomy (Kara, 2007).

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.74	Interview	Dr Asma	F	27	English	Muslim

" هون صعب فكرة خصوصية إنه تدخلي المريض، وتطلعي اللي معاه بره، يعني كل مريض لازم يكون مرافقه معاه، يعني هيك خلينا نحكى عادات أو هيك طبع خلينا نحكي."

[Here, the implementation of privacy is difficult as you cannot ask a family member to wait outside the examination room. It means family members are expected to be present. Let us say, habits and rituals.]

However, when the researcher asked whether a female would disclose information if a family member presents during the medical examination, particularly her husband, Dr Asma explained that it would be more acceptable and comfortable for her.

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.75	Interview	Dr Asma	F	27	English	Muslim

" الزوج لا. الصراحة، بس لما يكون جاى معاها مثلاً أخت الزوج أو حماتها، بتحسي أنه في شيء بس هي مش قادرة تعبر، لأنه يعني مفروض عليها فرض هذا الإشي."

[The husband doesn't. However, when she is accompanied by her sister-in-law or mother-in-law, you may feel that there is something, but she cannot express it. It seems that she is forced to accept this.]

Still, on the issue of companions interferencing, Dr Shadi states that patients might conceal important information due to the presence of a companion.

Fragment	Date source	Doctor	Gender	Age	Education language	Religion
6.76	Interview	Dr Shadi	M	65	English	Muslim

" معلومات حساسة و يفضل المريض اخباري بها دون وجود مرافق."

[It is about sensitive information. The patient would prefer to tell them, but not in the presence of any companion.]

In this study, doctor's responses reveal that patients experienced discomfort when disclosing information and details in the presence of family members regarding aspects of their private life which might be valuable for diagnosis and treatment. They may prefer autonomy when consulting their doctors. Indeed, female patients who are most affected by the culture of female submissiveness to the family members and their interference, might be forced to cede their privacy (Ganle, 2015) and save face in society.

6.9 Summary

In this chapter, I provided responses from participants and used that evidence to answer my third research question. I explored the socio-cultural barriers that hinder doctor-patient communication and cause misunderstanding. In the process, I identified various themes such as: the impact of gender on D-P interaction; the impact of patient's level of education on D-P interaction; factors hindering patients from seeing doctors; limitations in the treatment of patients; patients' perceptions of communication with doctors; traditional medicine; and the impact of culture on communication & seeking health services.

It can be concluded that many patients felt that cultural differences made clinical consultations more difficult when doctors were of opposite genders. Patient satisfaction was associated with doctors' explanations of health treatments and their communication style (Matusitz & Spear, 2015).

The findings also showed that patients believed in traditional medicine which has a significant impact on their relationship with the doctor and healthcare outcomes. On the other hand, doctors insisted that the use of herbal medicine only exacerbated the health condition of patients.

It is also shown that cultural beliefs and societal norms can force patients to withhold relevant sensitive information and can present challenges for all parties involved.

Chapter Seven: Discussion

7.1 Introduction

The purpose of this qualitative study was to explore the barriers that affected doctor-patient communication in healthcare settings in Jordan. My investigation focused on language barriers, including non-verbal communication and sociocultural barriers. In this chapter, I discuss salient themes in the study findings by addressing each research question and its related themes.

This chapter includes a discussion of major findings related to the prior doctor-patient literature and is specifically focused on assessing the role of education, religion and gender on the doctor-patient communication process. This was collected from general practitioners (n= 10; nine males & one female) who were bilingual (Arabic, English and languages other than English) due to their medical education and patients (n= 18; twelve males & six females) were selected according to three demographic categories: age, gender and education. The interpersonal communication that included verbal and non-verbal issues of D-P interaction were addressed in relation to Interactional Sociolinguistics Theory (IST) and Communication Accommodation Theory (CAT). Analysis of video and interview data has identified factors that affect doctor-patient effective communication, verbal or non-verbal.

This chapter contains a discussion to help answer the three research questions:

(RQ1): What are the factors that hinder doctor-patient verbal interaction?

(RQ2): What are the non-verbal communication benefits and barriers in doctor-patient communication?

(RQ3): What are the socio-cultural barriers that cause ineffective doctor-patient communication and misunderstanding?

7.2 Research Question 1

My first research question focused on language barriers that primarily affected D-P verbal communication, and whether or not it shaped medical interactions in anyway. For easy comprehension, the factors that led to difficulties during doctor-patient communication as reflected on the responses from participants and observation were grouped into the following subthemes.

- Lack of 'common' language
- Lack of Understanding
- Low Health Literacy of Patients
- Code-switching motivations for enhancement in D-P communication
- Challenges in diagnosing due to gender differences and disclosing sensitive issues

Evidence of accommodation in doctors' interactions with patients was identified by conducting interviews and detecting patterns in language that indicate miscommunication. Some patterns may be 'ask questions, commissive, continuation, conversation management, directive, give information, humor/levity, missing/other and social-ritual' (Wallace, et al., 2013 as cited in Wallace et al., 2014), and language differences such as speaking English and using medical jargon. Linguistic accommodation in the interaction between doctors and patients was examined as well as code based on the accommodation (convergence or divergence).

7.2.1 Lack of 'common' language

Analysis from both doctor's and patients' perspectives revealed that lack of 'common' language was a source of misunderstanding between both parties, which negatively impacted their communication. From the perspective of doctors, while it is essential that all patients are able to interact effectively with healthcare providers, the challenges encountered by doctors who trained in English and other languages, appeared to be the use of medical jargon in

explaining the diagnosis and medication which are unfamiliar or ambiguous to patients: this poses a problem for them (Amp et al., 2013; Farahani et al., 2011; Koch-Weser et al., 2009; Links et al., 2019; Rocque & Leanza, 2015; Taiwo, 2013; Wiener et al., 2013). Dr Asma framed the dilemma in this way (See Fragment 4.1 in 4.2.1):

" صح أنه في مصطلحات إنجليزية حتى رديف إلها بالعربي راح يكون أصعب منه بالإنجليزي الصراحة."

[Some English terms do not have synonyms in the Arabic language.]

Data demonstrated the doctors' ability to break through communication barriers by changing medical terminology into lay terms (Barrett, 2013; Holst, 2010). However, the issue of non-equivalent health vocabulary to discuss health issues in one language was a challenge for doctors (Acquah, 2011). For example, Dr Asma (see Fragment 4.2) had a difficulty with medical terms when she used "otoscope" whilst talking to her patient Ms Haleema which resulted in misunderstanding. As part of her responsibility, Dr Asma was able to achieve mutual understanding by bringing the "otoscope" and explaining to the patient the meaning of it and its purpose. Not only was this strategy used by doctors in changing the medical terminology into lay terms, but also the 'Repair' strategy was utilised when patients used inadequate vocabularies to describe their health condition as mentioned in Fragments 4.2 and 4.3. This strategy was used to correct patients without fear of damaging the rapport that was been built up with them (Berger & Cartmill, 2017).

From the patient's perspective, the use of medical jargon by doctors has the potential to create significant barriers in conversation (Amp et al., 2013; Farahani et al., 2011; Koch-Weser et al., 2009; Rocque & Leanza, 2015; Taiwo, 2013; Wiener et al., 2013). Patients argued that the nature of doctors' education, as they were educated in English (Hamdan & Hatab, 2009), was possibly the main reason behind the use of English and medical jargon during the medical consultation. For example, Mr Tamer explained as follows (see Fragment 4.9):

" لازم أسأل، لأنه هو متعود طبيعته إنه دراسته هيك يعني لغته اكثر شيء بتكون اللغة الإنجليزية."

[I have to ask, because of his profession and education, he is used to using English terms.]

Patients also identified the fact that they felt excluded during the medical consultation when their doctors negotiated their health conditions and treatments with their colleagues. For instance, Mr Mamoun was not satisfied with his doctor in a previous experience (see Fragment 4.13) as illustrated below:

"مثلًا صار يحكي لدكتور ثاني جنبه لغة إنجليزية. فسألته إيش اللي قلته؟ قال : بحكي عشان نغير علاجك اللي كان سابقًا ونجدد علاج غير الاول".

[For instance, the doctor was talking in English with another doctor and I asked him, 'What did you say?' He said: 'I was talking about changing your previous prescribed medicine and giving you another one.']

According to CAT (Giles et al., 1991), this way of concealing illnesses and treatments from patients is a unique style of communication used to highlight differences between them and their patients. However, the patients in this study felt that they had a good relationship with their doctors regardless of their limited medical vocabulary, which may be due to the patients' ability to adapt to the doctors' communication style and due to the advocacy for the need for further clarification from their doctors to help them understand their illness better. When the doctors used medical terms, the patients matched this style by using the strategy of convergence (See Fragment 4.33) which can be explained in CAT (Giles & Ogay, 2007; Giles & Smith, 1979). This strategy assumes that communicators adjust to a situation either by converging or diverging from the listener. The motives behind convergence, according to Giles et al. (1987), are precisely the desire for social approval, social integration, increasing the effectiveness of communication between interactants and desiring positive social identities.

7.2.2 Patients' limited health literacy

Another issue encountered by doctors was that patients were unable to provide a full explanation about their illnesses. Galanti (2014) explained that the reason why patients give

unclear or inaccurate information is due to the lack of technical vocabulary to describe their symptoms in a way doctors can understand. They use vocabularies or daily spoken language that they are familiar with in expressing themselves (Acquah, 2011). For instance, Dr Shadi stated (See Fragment 4.4 section 4.2.1):

" المشكلة احيانا المريض لا يعبر عما يشكو منه، فمن الممكن ان يلفظ كلمات بالنسبة اله الها معنى وبالنسبة النا الها معنى آخر."

[The problem is sometimes when the patient does not express his complaint well. It is possible to utter words that are considered meaningful for him and carry another meaning for us.]

A possible explanation why patients employ different technical vocabulary than doctors for the same concept (Fage-Butler & Nisbeth Jensen, 2016) is based on their LHL. At this point, many studies concur that patients with low health literacy cannot explain what they suffer from, which can result in a negative treatment experience (Ball et al., 2015) or not obtaining an accurate diagnosis (Aarons, 2005; Barrett, 2013).

This study also provided insight into the verbal issues faced by doctors, one being the low health literacy of patients. The majority of doctors expressed dissatisfaction in patients' ability to express themselves and in their own ability to comprehend them, which results from a lack of medical awareness in patients, this being the main reason for lack of comprehension among patients. For example, doctors reported that health literacy is an essential component in the healing process, medication compliance and the overall doctor-patient relationship. Dr Ali argued (See Fragment 4.17 section 4.4):

"أكثر شيء صعوبة هي ثقافة المرض، و ثقافة المجتمع اللي إحنا فيه، مفيش تثقيف أو وعي صحي عند المريض بحيث تتعامل معه بسهولة."

[The most challenging thing is the culture of disease, the culture of the society we live. There is a lack of a patient's health awareness that hinders dealing with him quickly or smoothly.]

Dr Ali's observation is consistent with findings in other studies that revealed that many people who have serious health issues are at high risk of medication mix-ups or dosage errors, and

poor medication adherence that results from limited medical knowledge of their health conditions (Brown, 2016; Hasan et al., 2019; Koch-Weser et al., 2009; Pagano, 2018; Schillinger et al., 2002; Sturm, 2016). To this effect, in this study, doctors suggested that patients' level of comprehension of the doctor's advice or instructions would be greatly enhanced with a better level of health education (Pagano, 2018; Sassen, 2017), which is gained through learning at schools and universities. Mahafzah (2018) reported that the illiteracy rate in Jordan remained at 5.2 percent at the end of 2017. However, patients lacking medical knowledge to communicate effectively with a doctor, as those who have low health literacy, may also experience adverse consequences to their health status. Moreover, most medicine packaging or instruction leaflets are written for individuals with high-school education. This matter can be exacerbated by language barriers and the overuse of medical terminology. Twelve of the patients reported lacking English proficiency. Consequently, it is the responsibility of doctors to help the patients understand their medical issues by using strategies such as drawing diagrams or pictures to ensure mutual understanding as well as effective D-P interaction (Barrett, 2013; Berger & Cartmill, 2017).

7.2.3 Patient education level

Another theme explored in this study was patients' lack of understanding of their health issues (Taylor et al., 2013) as a result of lack of health awareness which resulted from a low level of education (Trueheart, 2018). Most doctors identified the level of education as a barrier to patients making treatment decisions and understanding their treatment and medication. It was discussed how the low level of education contributed to patients not having a full understanding of their treatments and medication non-adherence, in contrast with well-educated patients who were able to understand their diseases and treatments (The Joint Commission, 2007). For example, Dr Ali states that lack of health awareness can complicate the healthcare communication (see Fragment 4.23):

"أكثر شيء صعوبة هي ثقافة المرض، و ثقافة المجتمع اللي إحنا فيه، مفيش تثقيف أو وعي صحي عند المريض بحيث تتعامل معه بسهولة، أو بسلاسة أو بكذا، بس هذه أكثر شيء، هذه الفكرة الرئيسية ".

[The most difficult thing is the culture of disease, the culture of the society we live. There is a lack of patient's health awareness that hinders dealing with him easily or smoothly. Hence, this is the main issue.]

Although some doctors appeared not satisfied with patients' limited understanding of their health conditions, in this study patients seemed satisfied because they understood their illness and their medication. While findings from this study are consistent with other studies where a patient's education has been associated with improved patient adherence (Aarons, 2005; The Joint Commission, 2007; Improta, 2011; Maly et al., 2010; Nguyen, 2016), it is inconsistent with results obtained from a study by Baughn (2012) which revealed that the education level's role was unclearly associated with patient-reported affiliation. Thus, in this study there does not appear to be a definite linear relationship between patient education level and patient-reported adherence.

7.3 Research Question 2

The research question examined the non-verbal communication benefits and barriers in doctor-patient communication in Jordan. This study reported the presence of positive non-verbal behaviours in the form of (a) eye contact and (b) smiling as significant contributing factors associated with high patient satisfaction. In contrast, findings from this study also showed non-verbal behaviours that negatively influenced the relationship between doctors and patients such as (a) touch and (b) power distance.

7.3.1 Effective non-verbal communication

Raising awareness of the benefits of non-verbal communication in healthcare settings in Jordan is essential. Therefore, this research provided insights into the potential benefits of effective D-P non-verbal communication. While examining the differential benefits of non-verbal cues in D-P interaction, this study found that some non-verbal behaviours helped to strengthen the

doctor-patient bond and improve the quality of care and patient experience. Among these non-verbal behaviours were: (a) eye contact and (b) smiling.

7.3.1.1 Eye contact

A key influential factor that significantly impacts patients' perceived quality of care is the verbal and non-verbal communication between the patient and the clinician (DeBlasio Olsheski & Walker, 2011). Research has shown that doctors' eye contact increases patients' confidence, facilitates rapport building, demonstrates a desire to understand patients' health conditions (Clipper, 2015; Roberts & Bucksey, 2007) and determines the level of satisfaction in the medical service. The findings of this study showed that the doctors maintained eye contact in all medical consultations (see Fragments 5.13 and 5.14). On some occasions, eye contact was accompanied by other non-verbal behaviours such as head-nodding or hand pointing (see Fragment 5.13). This finding is in accordance with the findings of previous research carried out in healthcare settings (Asan et al., 2018; Clipper, 2015; Gorawara-Bhat et al., 2017; Kozimala et al., 2016) which suggested that doctors should focus more on interacting with direct eye contact in order to establish a good relationship with their patients. Since all medical consultations observed in this study were videotaped, eye contact was considered an indicator of attention and encouragement for the patient to continue explaining his or her complaint. However, some instances prevented eye contact from being a reliable indicator. First, the doctor needs to write and sign a prescription for each patient who requires one before handing it to them. Second, when the patient focuses on pointing at or showing the source of complaint or pain, this requires the doctor to display attention by gazing which is seen as one constituent of a patient-centered medical consultation (Ruusuvuori, 2001).

7.3.1.2 Smiling a powerful tool in D-P communication

The benefits of smiling have been recognized historically. As stated by Morgan et al. (2017) and Gorawara-Bhat et al. (2017), physicians are more effective when they use specific non-verbal behaviours such as sustained eye contact; adopt a closer body position to the patients; use appropriate touch following the cultural norms; lean forward; smile frequently and warmly; and adopt professional appearance. This study found that the doctor's smile had a great influence on patients' satisfaction and in building a strong relationship with them. Based on patients' experience, doctors who smiled were preferred because they believed that their smile would facilitate communication. For instance, Mr Sami explained (See Fragment 5.15 section 5.3.2):

".بروح مرحة. يكون مرح، مبتسم"

[He should have a sense of humor. He should be funny and smiley.]

This comment is consistent with research indicating that smiles create an atmosphere that is favourable for patients to disclose personal information that is necessary for medical treatments; for example, when receiving positive responses, such as greetings (Hall, 1990; F. Khan et al., 2014; Remland, 2017; Small et al., 2015). This is in contrast to findings by Hillen et al. (2018) who reported that smiling by oncologists did not align with immigrant, (non-Western, mostly Turkish, Moroccan and Surinam backgrounds) female preferences. Smiling impacted their perception of the oncologist's authority and consequently, affected their trust. The reason for this difference is likely to be that the doctors in this study are Jordan-born medical doctors (part of the Islamic culture) which places great emphasis on smiling in order to have a good relationship with others (Vandestra, 2018).

In all medical encounters, doctors regardless of their social status, maintained good communication skills with their patients at all times by displaying a kind and friendly attitude.

Mostly, doctors were found to use convergence strategies by showing positive non-verbal cues such as smiling at the beginning of consultations (see Fragments 5.17 to 5.20) and creating a humorous atmosphere (See Fragments 5.19 and 5.20). Doctors' use of humor was to close the social distance between them and their patients. According to CAT (Giles et al., 1987), doctors' use of this strategy is to make medical advice easily understood and accepted. In converging to lower status groups, adjusting the language was necessary: this would gain the patient's approval and acceptance. As found in Giles et al. (1991), converging speakers are perceived as communicatively more competent and more cooperative.

7.3.2 Non-verbal communication barriers to D-P interaction

7.3.2.1 Avoidance of unnecessary touch with females

The use of touch is an effective rapport builder and communication medium between patients and health providers (Elliott et al., 2016; Remland, 2017) and an encouragement to comply (Wang, 2010). However, in this study, doctors faced difficulties in providing care that requires therapeutic touch when dealing with patients of the opposite sex because of social conventions in relation to male and female interactions in Jordan. My findings resonate with previous studies in Islamic societies (Al-Khasawneh, 2002; Harford & Aljawi, 2013) and other Asian or European societies (Galanti, 2014; F. Khan et al., 2014; Tackett et al., 2018) which have argued that patients responded to touch based on the gendered dynamic of the interaction. However, my findings do not support findings conducted by Vorpahl (2018) and Weinberger et al. (1981) that is patient and doctor gender did not influence touch in interaction. Notably, the study showed that female patients were reluctant to be touched by a male doctor and their preference was to be consulted by a female doctor as they felt more comfortable and unthreatened. One female patient, Ms Ayat explained (See Fragment 5.2 section 5.2.1):

" بدك الصراحة لانك بترتاحي للست أكثر من الشاب. في شغلات بتسفسري عنها من الدكتورة و بتنحرجي من الدكتور."

[To speak frankly, I feel more comfortable with a female doctor, not male. There are things you would like to ask a female doctor about them since you feel embarrassed by a male doctor.]

The impact of gender became more evident when female patients felt threatened by male doctors not demonstrating sensitivity to Jordanian cultural norms when interacting with members of the opposite sex. Therefore, as part of cultural competence and delivery of high-quality care to Muslim patients, it is vital for doctors to have an understanding of the ramifications of the Islamic faith and beliefs when interacting with patients in terms of touch (Rassool, 2014). In fact, because touching members of the opposite gender is often perceived as sexual (Morgan et al., 2017; Tackett et al., 2018), the data suggests the presence of another healthcare professional, preferably a female, during the medical encounter would be beneficial (Tackett et al., 2018).

7.3.2.2 High power distance

Although doctors aimed to minimize the social distance between them and patients by displaying various non-verbal communication forms such as eye contact, greeting and smiling, data revealed that social factors that create a power distance and influence D-P communication were: doctors' social status, English language, and cultural differences. Clearly, during the four stages of the medical encounter - obtaining the medical history, clarifying information, revealing the diagnosis and managing the condition (Heath, 1992), doctors displayed characteristics of high power distance societies. They appeared to control the consultation or distance themselves from patients by using kinesic cues such as expansive body posture and high-pitched voice to display control and knowledge. On the other hand, patients displayed a lot of head-nodding as acknowledgement of understanding and to show agreement to doctors. Consequently, these patients may feel a strong need to trust their doctor.

Goffman (1961) explained patients may perceive themselves as less potent than doctors due to the medical knowledge they have on their health condition (Ahmed & Bates, 2016) and due to

the respect they feel towards the high status of doctors and the non-verbal communication they display which stems from the high, power distance culture (Pagano, 2018). Hence, my findings confirm the undesirable dimension of power distance in a study by Kelly (2017) who argued that language barriers and social, racial and economic inequality between middle-class doctors and often indigent patients create a link in power inequality. This resulted in doctors treating South African patients as inferior to them in disability assessments. Besides, the absence of formal translation services in clinics forced doctors to focus on the contents of the file records rather than communicate with the patients. These barriers made it difficult for doctors to build rapport and trust with the patients. However, in another study by Schinkel et al. (2019), power distance between native Dutch patients and doctors was less than those among Turkish-Dutch migrant patients in the Netherlands because native Dutch patients wanted to be involved in the decision-making process and debate treatment options. In contrast, Turkish-Dutch patients agreed that the doctors know best, and that they would assume responsibility for their actions regarding health, diagnosis, and treatment. Communicating in a high-context style with their doctor was their preference in which they told their personal stories and expressed emotions. They appreciated doctor's delivering highly positive non-verbal messages by laughing and touching to build a positive D-P relationship.

Certainly, power distance can indeed impact people's non-verbal communication from a high context culture (Remland, 2017). This research exemplified this scenario when patients nodded their heads to their doctor as a sign of respect for their authority as the experts, although they may not have understood the doctor's explanation (Mulyana, 2016).

7.4 Research Question 3

The third research question in this study employed a sociolinguistic lens to analyse cultural influences on doctor-patient communication. To be precise, it inquired what factors hindered

Jordanian patients from visiting doctors and affected their medication adherence, and what information patients would not disclose to their doctors, and under what circumstances. This study has found that a patient might not visit the hospital due to the following challenges: (a) unavailability of medicines (b) patients' hardships in accessing medical services (c) word of mouth and (d) resources and health services of the hospital. Findings also revealed why a patient might withhold relevant, sensitive information because of (a) embarrassment about taboo topics, and (b) presence of a third party. As discussed earlier, low health literacy of patients, which results in non-commitment to treatment, was an obstacle experienced by doctors in this study. Consequently, patients ignored the importance of doctor's medical advice to take medicine or even the follow-up of their health conditions due to some challenges such as: (a) transportation or (b) the lack of health services. One patient, Mr Jasser explained (See Fragment 6.35 section 6.4.2):

"بنكابر على حالنا احنا ، بينحكي هالوجع عادي يوم يومين بروح. ما نروح إلا وحنا مستويين."

[We think we can bear the pain; we tell ourselves that it will last for one or two days. We do not visit the doctor until it gets worse.]

Within this study, doctors argued that patients neglect their health conditions. In particular, medication non-compliance in patients leads to substantial worsening of the patient's health condition. Dr Nabeel narrated this in the story about a female patient who was non-adherent to her diabetic treatment regimen which led to negative consequences on her health condition as a result of using herbal medicines. This led Dr Nabeel to make the decision to hospitalise her for a couple of days under observation (see Fragment 6.62). Unfortunately, when patients do not adhere to doctor's medical advice, the doctors become increasingly frustrated (Barnett, 2006; Torres, 2004). Therefore, the data suggests that the improvement of patient' health education may improve patient adherence to medical recommendations (Maly et al., 2010; Nguyen, 2016).

7.4.1 Taboo topics

A significant finding in this study regarding patient non-disclosure of sensitive information is embarrassment about taboo topics. Patients avoided discussing sensitive information directly with their doctors, particularly female patients with male doctors (See Fragments 6.66, 6.67 & 6.72). Female patients seemed more comfortable disclosing to a female doctor than a male. My findings echo with previous studies which have argued that patients are reluctant to disclose health conditions of a sensitive nature due to cultural and religious beliefs which can be a barrier in communication with doctors during a medical consultation with the opposite gender (Acquah, 2011; Naseem, 2018; Rocque & Leanza, 2015; Tackett et al., 2018). The study by Akhu-Zaheya and Masadeh (2015) in Jordan shows that discussing sexual information is a taboo. The study further revealed that some patients prefer written materials about sexual life instead of verbal communication as the former would feel more comfortable, less direct and less confronting than the latter. It is also argued that gender is an obstacle discouraging patients from disclosing any relevant information regarding sexual life.

Doctors asserted that female patients may not disclose any embarrassing or sensitive information. For example, Dr Nabeel explains that female patients do not speak about sensitive topics due to embarrassment which makes him feel dissatisfied (See Fragment 6.68).

" مع الجنس الأخر، شيء أكيد يعني. بعضالاحيان مثلا: تأتي بألم في البطن، لكن بتكشف إنه ألم بشكل دائم بيصير عندها لما تجيها الدورة الشهرية وبتخفيه و بتضيع وقتك ووقت المرضى اللي بستنوا فيك؛ عشان إنها محرجة إنها تحكي."

[With the other gender, certainly yes. Sometimes, for example, a female comes to me with a pain in her abdomen, but I may discover later that it is a usual pain accompanied by the menstrual period, but she does not disclose that. So, she might waste my time and other patients' time who are waiting for me because she feels embarrassed.]

This incident and other incidents (see Fragments 6.69 & 6.70) in this study indicate that doctors fail to communicate well with female patients because females would be more comfortable speaking about taboo topics to a female doctor than a male. Therefore, the data suggests that a doctor needs excellent communication skills to be able to handle sensitive information

(Galanti, 2014). When the healthcare provider and the patient are of different ethnic backgrounds, there are numerous additional opportunities for misunderstandings.

7.4.2 Presence of a third party

A rather interesting finding in terms of patient withholding relevant sensitive information is the "presence of a third party". Results from this study indicated that patients avoided sharing their sensitive private information when other relatives accompanied them. Notably, doctors argued that female patients of Muslim background are most affected by the culture of female submissiveness to the family members (Ganle, 2015). Although some studies have revealed that family support is very important in doctor-patient communication (Sheehan et al., 2019; Wang, 2010; Wolff et al., 2015), others indicated that a patient's privacy might be violated when a companion is present (Acquah, 2011; Bedford, 2013; Houston, 2002). In Jordan, married women are expected to share information about maternity/pregnancy and other sensitive information with their mother-in-law because of societal norms and rituals. In Arab societies, friends and family participation is quite routine in clinical encounters (Nasir & Al-Qutob, 2005). Part of the reason is that this tradition is rooted in collectivistic culture (Hofstede, 1980) and Jordan shares these traditions. Individuals in collectivistic cultures tend to value group goals, to strive for social harmony and fulfillment of their social duties. This interdependent relationship results in their valuing self as part of the group rather than being entirely autonomous and seen as such. Thus, Jordanians are more concerned with group prevailing, which is usually the family unit. As a result of this collectivistic image, family-in-law female members tend to be more authoritative and are expected to monitor the medical treatment of their daughter in-laws (see Fragment 6.75).

This finding is in congruence with a study by Daibes et al. (2018) who reported that, in rural areas, a daughter-in-law is possessed by her mother-in-law and other family members. The

mother-in-law has a right to interfere with private affairs, even when it comes to decision making in critical moments. This practice is typically influenced by a mother-in-law's attempt to guard the family "name" or reputation. For example, deciding when the couple should have a baby would be a mother-in-law's way of ensuring her sons progeny continues. However, in this study, participants acknowledged the implementation of privacy as an essential aspect of D-P communication. From doctors' perspective, patients are uncomfortable when disclosing private information and details in the presence of family members. Privacy is needed when disclosing information which might be valuable for diagnosis and treatment (see Fragment 6.76). In essence, doctors have to determine what can be done to ensure the patient's right to privacy is protected during the consultation.

7.4.3 The impact of traditional medicine

Another important finding for research question (3) cantered on challenges encountered by patients because of treatment in traditional medicine and how this impacts their relationship with their doctors. For example, Mr Mamoun relates (See Fragment 6.57 section 6.5.1):

" آه، مر علي. التجربة مرة انكسرت إيدي ورحت على مجبر جبرها. ورحت بعدين على دكتور، قال: يا عم ما بصير تروح على المجبر، وطب العرب هذا. اتضايق الدكتور و قال ما بيصير! لازم إنك جيت طوالي علي."

[Yes, I have experienced such a thing. Once it happened that my hand was broken, and I went to a bone splinting healer. Then I went to a doctor who said, "You should not have gone to bone splinting healer and used Arab medicine." The doctor became annoyed and said, "You had to come directly to see me!"]

The problem was he had engaged first in traditional healing and only came to the doctor when the situation had become worse which resulted in conflict between the two parties. Apparently, the doctor was dissatisfied in Mr Mamoun's choice of medical treatment by traditional healing because of the greater risk associated.

Patients argued that they preferred to engage in alternative treatments such as herbal remedies as a starting treatment before consulting a doctor (Welz et al., 2018). As mentioned by GPs,

some patients, particularly chronically ill patients used herbal remedies at home and only went to hospital when their illness became worse. For example, Dr Salem argued (See Fragment 6.52 section 6.7.2):

" خصوصا مرضى الأمراض المزمنة بيفضلوا يروحوا يتعالجوا بالطب الشعبي القديم اللي هو فعليًا أنا لا أقتنع فيه نهائيًا، وما درست شيء في الطب يدرس فعالية هذا الشيء."

[Especially chronically ill patients, they prefer to be treated by traditional medicine which actually I am not convinced of at all. I have not studied in medicine the efficiency of such a thing.]

Thus, while doctors clearly expressed their disapproval of alternative medicine used by their patients, more research evidence is needed to evaluate this type of medicine in terms of pharmacological qualities and safety issues (Firenzuoli & Gori, 2007). A related study by Taylor et al. (2013) about cross-cultural communication barriers in healthcare in the UK found that nurses in emergency departments encountered challenges with patients from ethnic minorities. They found that during the wound cleaning process some patients engaged in remedies such as turmeric on wounds, or toothpaste or oil on burns. Another study in Jordan also, conducted by Wazaify et al. (2013) noted that reasons why patients use traditional medicine for treatment, in particular patients with chronic kidney disease (CKD), dyslipidemia and hypertension, was due to historical and cultural reasons. Their study revealed that herbal remedies were recommended by the media (52.3%), followed by family and friends (20.8%) yet endorsed very little by the doctors. Therefore, clinicians should inform their patients about potential risks and possible adverse effects that are associated with some herbal remedies.

It is worth mentioning that this study showed that the cultural practice of patients could also interfere when choosing traditional treatment options and impede D-P interaction. As noted in this study, patients' engagement in traditional medicine appeared culturally determined by their beliefs and attitudes. For example, according to Mr Tamer, it is a traditional practice to treat with herbal remedies first before consulting a doctor (See Fragment 6.48 section 6.5.1):

" هذا يمكن بداية العلاج إحنا بنختار الطب البديل؛ هيك طبيعة المنطقة هذه."

[We choose alternative medicine first. It is the culture of our region.]

The patients used herbal medicines after consulting traditional medicine practitioners knowing that doctors would not approve it. This engagement in traditional treatments based on cultural beliefs (Ozioma & Chinwe, 2019; Scheppers et al., 2006) causes challenges for doctors and impacts their relationship with their patients. Doctors argued that some patients choose to engage in alternative treatments such as herbal medicines before visiting the hospital which brings challenges. For example, Dr Amjad said (See Fragment 6.51 section 6.7.2):

" حقيقة نعاني من الطب البديل هذه الايام .في بعضهم بثقوا بالطب البديل. الأعشاب أو ممارسة نوع رياضة؛ هذا الطب شائع وموجود. في بعضهم بقول ما بدي علاجات، طيب انت جاي عند طبيب وبده يعطيك علاج . نعاني أحيانًا من هذه المشكلة، أحيانًا يأتي لنا مرضى ماخذين طب بديل وفي حالة تسمم."

[The fact is that we suffer from using alternative medicine these days. Some patients do still trust in alternative medicine. They take herbs or practice a sport. These medicines are common and still exists. Some of them would say, "we do not need drugs"; then why do you come to see the doctor? We sometimes suffer from this problem. Sometimes some patients come to us with severe poisoning after getting treated by an herbalist.]

An overwhelming majority of doctors agreed that some patients' cultural beliefs could make their health conditions worse and create a gap in communication with them during consultation. Although the use of herbal remedies is widely considered safe and causes no side-effects because they are derived from natural sources (Wazaify et al., 2013), this research highlights and supports the importance of understanding such cultural beliefs for clinicians who might encounter patients who have used traditional herbal remedies so that they can be informed on potential risks to their health. Hence, cultural competence is an essential part of D-P communication for a successful medical practice which requires knowledge about people's social values and cultural beliefs when it comes to the use of traditional medicine. Healthcare providers need to learn the importance of asking patients about these remedies, the reasons behind the use of them and to find out a possible treatment (Taiwo, 2013) to avoid any miscommunication that may affect their relationship with their patients.

7.5 Summary

The purpose of this study was to identify the verbal and non-verbal communication benefits and barriers in doctor-patient communication. This chapter discussed possible answers to barriers identified in my research that affected doctor-patient communication in Jordan as well as issues that greatly affected the quality of healthcare. The doctor's use of medical jargon in explaining medication and treatments appeared to be a challenge affecting patients' comprehension. This is because not all patients are educated in the same academic level as doctors, thus requiring medical terminology being changed into lay terms. Another issue encountered by doctors was patients' lack of technical vocabulary to describe their illness which resulted from their LHL. It was found that patients with limited medical knowledge of their health condition, which is a result of a low level of education, are more likely to misunderstand medical treatments. Therefore, the study suggested that doctors should use strategies such as using diagrams or images to ensure mutual understanding.

A second area this project investigated was the non-verbal communication benefits and barriers in doctor-patient communication. Research in the area of communication accommodation suggests that speakers are expected to converge or diverge depending on the context and on the underlying motives attributed to convergence or divergence. Interestingly, evidence for convergence was found, occurring across many of the non-verbal cues such as eye contact and smiling. Doctors focused more on communicating with direct eye contact and smiling to establish a good relationship with their patients. On the other hand, doctors became more divergent in displaying specific behavioural cues such as speaking with a higher pitch and expansive body posture as a way to signal authority and dominance in their interaction. On the other hand, patients displayed a lot of head-nodding to acknowledge understanding and to show their agreement to doctors.

Another barrier that emerged from this research was the avoidance of unnecessary touch with female patients. Ultimately, findings revealed a significant impact of non-clinical touch on patients' satisfaction: particularly females. Touch, even when it performs essential clinical tasks, can be perceived as sexual. Therefore, a clinician may create a reasonable atmosphere where he can safely perform touch in the presence of another healthcare provider, preferably a female, during the medical encounter (Tackett et al., 2018). This finding makes the clinical examination of female patients difficult for professionals providing healthcare, requiring consciousness of the different interpretations of this activity in order to prevent distress, confusion, harm or abuse to them.

Similarly, findings from research question three highlighted three communication barriers that negatively affected treatment experiences, these were: non-disclosure of sensitive information (taboo topics) causing embarrassment, presence of a third party and treatment by traditional medicine. The study revealed that female patients are reluctant to disclose health conditions of a sensitive nature to a male doctor due to cultural and religious beliefs. Additionally, doctors argued that patients feel that the presence of a third party constrains discussion of sensitive topics and makes communication challenging and sometimes impossible. As a result, patients were at risk of receiving insufficient therapy. Further, it was found that Jordanian people generally place a high value on traditional medical treatment (Welz et al., 2018) which in doctors' opinions only exacerbates their condition. Patients with chronic illnesses such as diabetes, frequently engaged in herbal remedies and did not adhere to treatment recommendations, especially elderly patients (Wazaify et al., 2013).

Therefore, a key point in this research is that if healthcare professionals successfully manage to address patients' needs and concerns through convergent communication styles, and an

awareness of barriers to communication, then they are likely to increase the effectiveness of communication and the quality of care given to their patients.

Chapter Eight: Conclusion

8.1 Introduction

This chapter presents conclusions and recommendations of the qualitative study designed to examine the barriers that hindered verbal and non-verbal doctor-patient interaction and socio-cultural barriers which caused ineffective D-P interaction during medical consultations in Jordan. I present a summary of the key findings in this study, as well as point to implications derived from these key findings. Finally, I make recommendations for future research in health communication. More specifically, the study posed three research questions:

(RQ1): What are the factors that hinder doctor-patient verbal interaction?

(RQ2): What are the non-verbal communication benefits and barriers in doctor-patient communication?

(RQ3): What are the socio-cultural barriers that cause ineffective doctor-patient communication and misunderstanding?

To answer these research questions, I engaged in non-participant observation of doctors and patients at a public hospital inside the medical clinics. Additionally, I conducted semi-structured interviews with the participants; doctors (n= 10; nine males & one female) and patients (n= 18; twelve males & six females) in real medical settings.

8.2 Summary of thesis

Analysis of research question one (chapter four) revealed that a number of factors influenced doctor-patient communication in Jordan, including lack of 'common' language, lack of understanding, low health literacy of patients and challenges in diagnosing. This study provides insight into how the use of medical terminology can contribute to patient's misunderstanding as well as be a challenge for doctors, who are insufficiently trained in managing effective verbal

and non-verbal communication with their culturally diverse patients. Nevertheless, the study found that doctors were sensitive to the language barriers and reported the strategies they used to minimise potential difficulties caused by the use of medical terminology.

Doctors often assumed that patients would not have any difficulty in understanding their discussion about their health conditions and diagnosis. In this study, doctors expressed concerns that too many patients did not recall the medication name given, did not remember instructions and did not adhere to medication. They identified the level of education as a barrier to patients' comprehension of the doctor's advice and treatment, and to successfully communication with them. Doctors argued that lack of patients' medical knowledge when providing a full explanation about their illnesses was associated with LHL. As a result, they may experience high risks in medication mix-ups and dosage errors. This requires policymakers and governments to enhance patients' level of health education to enable them to communicate effectively with a doctor and to avoid experiencing adverse health outcomes. These findings are not concordant with extant literature that indicates that there is little evidence of causality between the level of education and reduced health literacy (Koch-Weser et al., 2009) and anyone who needs health information and services needs specific health literacy skills (Ballweg et al., 2018).

The third theme yielded by the analysis of the participants' responses and observations in Chapter four was code-switching. The current study found that doctors and some medically trained patients switched to English and Arabic (different dialects) for the following reasons:

1- To fill a lexical gap
2- To accommodate communication with patients in reference to specific sociolinguistic factors (language, education, age, and gender).

In the current study, participants switched to fill in missing words or phrases from memory for easier accessibility or retrieval from memory (Green & Wei, 2014) or to accommodate the language of conversation, which leads to divergence or convergence (Giles & Smith, 1979; Singo, 2014). Hence, code-switching was not identified as a barrier in D-P communication; on the contrary, it was a strategy used by bilinguals to facilitate communication and to communicate their emotional needs and thoughts.

With regard to the role of gender in D-P communication, the current study found that gender roles affect the doctor-patient relationship and diagnosing because of socio-cultural and religious norms in the Arabic context. Females preferred a female doctor for sensitive issues because of feeling uncomfortable, which is in line with the findings of some studies that explored gender influences on communication between clinicians and patients (D'Agostino & Bylund, 2014; Padela & Pozo, 2011; Pagano, 2018). Moreover, because touching members of the opposite sex is often considered sexual (Andersen et al., 1987), minimum use of touch of the opposite sex was found by doctors to be of higher patient satisfaction. In this respect, doctors must display an understanding of cultural and religious diversity, respect for patient's faith, beliefs and values to avoid misinterpretation of clinical touch. There is also a need for female patients to understand the appropriate doctors' physical contact for diagnosis and clinical purposes.

Findings from Chapter five indicated that non-verbal cues, such as gazing and smiling, were found to be significant contributing factors in health encounters associated with high patient satisfaction. However, D-P communication is influenced by other non-verbal cues, such as body posture and loud pitch. Analysis of videotaped data has shown that the majority of doctors adopted expansive body posture quite extensively and displayed a dominant high-pitched voice throughout the medical encounter, which is a strong indicator of hierarchy (Eaves & Leathers, 2018; Müller et al., 2014). This resulted in patients withholding diagnostically important

information and influenced the overall care they received. These findings need to be translated into training on appropriate non-verbal behaviours in clinical consultations that lead to better patient outcomes and satisfaction.

The current study sought to investigate the socio-cultural barriers and how these barriers contributed to ineffective doctor-patient communication, patient dissatisfaction and poor quality of care. More specifically, it intended to explore the socioeconomic, psychological and cultural factors that prevent patients from visiting doctors and affects their adherence to doctor's instructions. The findings revealed that the reasons for not seeking healthcare were as follows:

1. Unavailability of medicines
2. Patients' hardships in accessing medical services
3. Word of mouth
4. Resources and health services of the hospital.

By contrast, patients' satisfaction was associated with positive experiences and some expectations about doctors' communication style during the medical consultation. They viewed active listening and mutual respect as a necessary component in their communication with doctors. As mentioned in many of the studies assessed (Galanti, 2014; Henry et al., 2012; Nunstedt et al., 2017), patients want their doctors to be able to listen to their stories and to be encouraged to recount them without interruption. This preference highlights one of the characteristics of the high context culture in Jordanian society, where indirect communication occurs through storytelling. Therefore, to understand the patient only is not sufficient but demonstrating an interest in listening to their stories is also necessary. Hence, the suggestion taken from this research is for doctors to perhaps listen more to their patients in order to improve communication.

In this study, patients' perception of traditional medicine has a significant impact on their treatment and their relationship with the doctors. They prefer to engage in alternative treatments such as herbal remedies before visiting the hospital. The Jordanian community views traditional medicine as part of its culture (Wazaify et al., 2013). Therefore, it is important for doctors to be culturally competent so that they can understand these practices and particularly those carried out by chronic ill patients in order to offer appropriate care.

8.3 Significance of the research

Nevertheless, regardless of the limitations, this study is one of the first to examine the sociolinguistic and cultural barriers in doctor-patient communication in Jordan. This project examines the potential obstacles that influence D-P interaction in healthcare settings in Jordan and will not only expand our understanding of health communication in the context of Jordanian healthcare but will also provide insight into clinical settings in other Arab countries in the Middle East. It also provides a possible contribution in helping clinicians better understand the complexities of the health communication scenario. Furthermore, during medical encounters, doctors use a medical language based on medical English jargons. This study also examines the doctor-patient communication, which can positively or negatively influence healthcare outcomes, how training doctors and raising their awareness of their verbal and non-verbal behaviours can develop their relationship with patients, and how this can improve the effectiveness of the overall clinical settings. The data-driven research reflects what is going on in real D-P clinical interaction in terms of verbal and non-verbal communication and socio-cultural perspectives. This includes raising doctors' awareness of their choice of verbal and non-verbal communication with their patients and its impact on them, i.e., code switching, providing tangible suggestions to enhance doctor-patient communication and finding ways to manage conflict (critical moments), if any.

The findings obtained from the qualitative method design in this thesis contribute to our understanding of doctor-patient communication and patient satisfaction in Jordan. Firstly, this thesis addresses an existing gap in qualitative research concerning patients' satisfaction regarding their doctor's behaviour in the medical consultation. Therefore, this study expands the literature on the role of gender, level of education or cultural group in patients' experiences while interacting with their doctors in medical consultations. In addition, the Arabic language and cultural background could both reflect on how to communicate with each other effectively. Hence, it is useful for non-Arabic speaking doctors interacting with Arabic patients outside the Middle-East region, such as Australia to become educated on this matter. Secondly, this research contributes to the study of doctor-patient interaction in terms of a reliable observational coding scheme, which was essential in effectively addressing the second research question posed in the present study. The present study looked at natural environments. One positive outcome of this study was the use of ELAN, the linguistic annotator (Mertens & Wilson, 2012), that can be a potentially important contributor in future observational clinical research. The benefit of coding natural interactions is to uncover and understand patterns of everyday communication. Such a tool appears to be lacking in existing research in health communication. It also contributes to the health communication literature and has recommendations for future research on doctor-patient communication interactions in Jordan and across the world as shown below.

8.4 Implications

The findings of this project have a number of implications for doctors, patients, and for bilingual doctors' medical education and professional development in the workplace. First, there is a need to educate our doctors on how to better relate and communicate with their patients to ensure that they feel comfortable disclosing sensitive health information. An important approach to ensure building higher levels of trust and comfort with patients is sharing

health information providing communication training skills for doctors on a periodical basis. Also educating them on how to be culturally competent and aware of patients' practices including knowledge about traditional medicine treatments. Another concern which emerged in this project relates to doctors' frustrations when patients use storytelling because of time constraints. This could be addressed by making scheduled appointments or implementing patient self-scheduling in order to maximize doctor productivity and enhance patient care. Second, because low health literacy is a health issue for patients and the challenges associated with it have serious impact on health outcomes, there is a need to support them with LHL so that they can take active roles in medical consultation. This should be done in collaboration with doctors and health educators to design simple and comprehensible health information through education at schools and universities. Finally, bilingual doctors' medical education and professional development in the workplace should be implemented through supporting ongoing education and communication skills training to promote effective communication between doctors and patients. Also, to avoid communication barriers, English medical terminology should be avoided when communicating with patients due to their limited understanding of medical terminology and that needs to be included in the clinical guidelines to improve quality of care as well as patient outcomes. As findings asserted the necessity for doctors to remain aware of specific factors (cultural and religious) that play during communication, there is therefore a need to create courses to teach medical students these factors and their influence in order to overcome any misunderstandings that may occur.

8.5 Limitations of the study

Although this project has made significant contributions to the understanding of health communication in the context of Jordanian healthcare, as mentioned in section (8.3), it does have several limitations and may not be widely generalised in other healthcare settings, particularly those outside Arabic cultural context. For instance:

1) only the first follow-up appointments was considered in this study; however, it would be important to look into not only the return of patients with minor or routine follow-up issues but also to consider chronically ill patients as they cope with complex treatment regimens, manage their multiple visits to health professionals and adopt or sustain healthy habits;

2) not all verbal or non-verbal communication behaviours—verbal behaviours such as patients' understanding of written communication (prescriptions), patients' compliance with therapy, communication anxiety, doctors' truth-telling, issue of privacy for communication and non-verbal behaviours, such as proximity, artifact, empathy and chronemics— though named as such, were covered in the project;

3) the participants constituted a small sample;

4) all doctor participants were male except one female doctor; therefore, findings would have reflected the potentially varied experience of female doctors if more of them had participated;

5) further limitations of this research include the inability to address the specific role of other health providers in doctor-patient interaction, such as nurses.

8.6 Recommendations for future research

While the current research has covered a number of aspects of health communication in Jordan, further research would shed more light on the verbal and non-verbal interaction in doctor-patient communication in Jordan. Recommendations for future research that might be pursued are as follows:

Firstly, as the current study is limited to a specific context between doctors and patients future research ought to include other clinicians in order to examine a broader range of observations

reflecting the linguistic and cultural behaviour of Jordanian doctors and patients during their interaction during medical consultations.

Secondly, this study is one of the first to qualitatively examine how non-verbal behaviours affect doctor-patient interaction in Jordan. Our findings suggest that recommendations for doctors' optimal non-verbal communication, e.g., maintaining frequent eye contact, listening, and smiling can create and maintain a positive relationship. However, findings also call for caution among doctors and other clinicians not to distance themselves from patients and not to display control and their medical expertise. Healthcare professionals may need to make extra effort to enhance their non-verbal and verbal communication behaviour. Ultimately, this could help patients to trust them, thus increasing health compliance and promoting the chances for positive health outcomes.

Thirdly, a thematic analysis of the verbal interaction of doctors and patients might reveal other reasons for code-switching, for example, whether code-switching is influenced by factors such as language competence and accommodation or whether it is shaped by differences in social or cultural conditions.

Fourthly, the current study has explored how patients' low health literacy and poor medical knowledge in doctor-patient interaction in Jordan creates a barrier to their understanding their treatment and medication. Thus, more study and research should focus on health written-information in doctor-patient communication concerning understanding instructions on prescriptions as an aid to help explore emerging barriers not identified in the current investigation and provide some evidence-based solutions.

Finally, the researcher honestly hopes that the current research can expand our understanding of doctor-patient interaction in Jordan. A study like this could be valuable in determining ways

that clinicians could overcome verbal and non-verbal barriers that prevent effective doctor-patient communication.

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Appendix A: Flyer for Doctors- English version

WESTERN SYDNEY
UNIVERSITY

Dear Doctor

As a part of my research in Linguistics at Western Sydney University, I am conducting a research study titled *A Sociolinguistic Study of Doctor-Patient Interaction in Healthcare Settings: A Jordanian Perspective.* The purpose of this study is to explore linguistic and cultural barriers that affect D-P interaction.

I would appreciate your participation in this study if you are a GP doctor, female or male. Your participation will involve: observation during interaction with your patient at the GP clinic and completing a one-on-one, in-person interview with the researcher. The interview is expected to last no more than half an hour, with the potential of follow-up from the researcher to clarify interview responses. Your participation will be audio and videotaped. Your participation in this study is voluntary. All information is confidential and anonymous.

You will be asked to sign an Informed Consent Form prior to the interview.
If you have any questions concerning the research study, please call me at 00962777239308 or e-mail me at e.alkhlaifat@westernsydney.edu.au.

Sincerely,
Etaf Alkhlaifat

Doctoral Student
Western Sydney University

Appendix B: Flyer for Patients - English version

WESTERN SYDNEY
UNIVERSITY

Dear Patient

As a part of my research in Linguistics at Western Sydney University, I am conducting a research study titled *A Sociolinguistic Study of Doctor-Patient Interaction in Healthcare Settings: A Jordanian Perspective.*

The purpose of this study is to explore linguistic and cultural barriers that affect D-P interaction.

I would appreciate your participation in this study if you are:
• An adult, female or male above 18 years of age.
• Jordanian

Your participation will involve an observation of your interaction with your GP doctor at the GP clinic and in completing a one-on-one, in-person interview with the researcher. The interview is expected to last no more than half an hour, with the potential of follow-up from the researcher to clarify interview responses. Your participation will be audio and videotaped. Your participation in this study is voluntary. All information is confidential and anonymous. Compensation for participation will be $20 for each participant.

You will be asked to sign an Informed Consent Form prior to the interview. If you have any questions concerning the research study, please call me at 00962777239308 or e-mail me at e.alkhlaifat@westernsydney.edu.au.

Sincerely,

Etaf Alkhlaifat

Doctoral Student
Western Sydney University

Appendix C: Coding Scheme for Thematic Analysis of Interview Transcripts

Themes	Sub-themes	Codes/ Sub-codes
RQ1: What are the factors that hinder doctor-patient verbal interaction?		
1. Lack of a 'common' language	Perspective of patients:	Patient's need for clear language: Exposure to medical terms (sub-code) Reasons for communicating effectively with the doctors (sub-code)
	Perspective of doctors:	Speaking English amongst doctors in front of patients (sub-code)
2. Lack of understanding		Level of patient's understanding of health information: Imposing a certain medicine (sub-code) Medication information (sub-code) Non-compliance to treatment (sub-code) Patient awareness (sub-code)
3. Language and health literacy		Difficulties in understanding doctor's instructions: Reasons for LHL (sub-code) Understanding doctor's language & instructions (sub-code) Impact of education on medicine in patient's comprehension - Overcoming this impact (Sub-code) Patient's health knowledge (sub-code) Lack of cooperation (sub-code) Doctor's awareness/ Unawareness (sub-code)
4. Doctor's health communication training		Health communication training: 1. Part of medical course training 2. Work-integrated training (WIT)

Themes	Sub-themes	Codes/ Sub-codes
5. Challenges in diagnosing	1. Gender impact on communication 2. Hospital care	Difficulties in diagnosing: Gender issues (sub-code) Hospital facilities (sub-code) Too many patients and limited consultation time Patients' refusal to reveal their real complaint (sub-code) Privacy (sub-code)
6. Challenges in acquiring the History	1. Organisational factors 2. Patient cooperation	Reasons that hinder obtaining History from patients: Withholding information (sub-code) Neglecting (sub-code) Lack of availability of services (sub-code) Lack of health knowledge (sub-code)
7. Challenges in explaining side effects	1. Patient's perception 2. Doctor's perception	Reasons for avoiding side effects explanation: Patient's fear from side effects (sub-code) Doctor's neglect (sub-code) Patient's level of health understanding (sub-code)
RQ3: What are the socio-cultural issues that cause ineffective doctor-patient communication (verbal and non-verbal) and misunderstanding? Education, gender, age (power distance, use of address terms).		
8. The impact of gender on D-P interaction	Taboo topics	Gender impact on interaction: Female GP preference (sub-code) Male GP preference (sub-code)
9. The impact of patient's education on D-P interaction		Impact of education level: Patient's understanding of his health condition (sub-code) Questioning patient's education level (sub-code) Overcoming the barrier of education level (sub-code)
10. Patient's perceptions of communication with doctors		Overall Patient's perceptions of communication with doctors: Patient's satisfaction (sub-code) Patient's dissatisfaction (sub-code)

Themes	Sub-themes	Codes/ Sub-codes
11. Traditional medicine	1. Patient's perception on traditional medicine 2. Traditional medication as a barrier	Treatment by traditional medication: Believing in traditional medicine (sub-code) Examples of traditional treatments (sub-code) Impact of traditional medicine (sub-code)
12. The culture impact on communication & health	1. Cultural competence 2. Patient's cultural dominance 3. Taboo topics 4. Interferences of companions 5. The culture impact on communication & health, and 6. Limitations in treatment of patients	Culture Impact on D-P communication: Withholding relevant medical information (sub-code) Reasons behind withholding relevant information (sub-code) Fear of revealing information (sub-code) Psychological factors (sub-code) Social factors (sub-code) Sensitive matters (sub-code) + Shyness from doctors (sub-code) Companions' impact on interaction (sub-code)
13. Reasons that hinder patients from seeing doctors		Economic reasons (sub-code) Negligence and ignoration (sub-code) Availability of medicine (sub-code) Patient's perceptions about private and public hospitals (sub-code) Word of mouth (sub-code) + lack of trust (sub-code) combined together

Themes	Sub-themes	Codes/ Sub-codes
		Fear of illnesses (sub-code) Hopelessness from medication (sub-code) Potentials of the Hospital (sub-code)
14. Limitations in treatment of patients	Patient treatment preferences	

Appendix D: Human Research Ethics Committee Approval

Locked Bag 1797
Penrith NSW 2751 Australia
Research Engagement, Development and Innovation (REDI)

WESTERN SYDNEY UNIVERSITY

REDI Reference: H12492
Risk Rating: Low 2 - HREC

HUMAN RESEARCH ETHICS COMMITTEE

9 April 2018

Doctor Ping Yang
School of Humanities and Communication Arts

Dear Ping,

I wish to formally advise you that the Human Research Ethics Committee has approved your research proposal H12492 "A Sociolinguistic Study of Doctor-Patient Interaction in Healthcare Settings: A Jordanian Perspective", until 9 April 2021 with the provision of a progress report annually if over 12 months and a final report on completion.

In providing this approval the HREC determined that the proposal meets the requirements of the National Statement on Ethical Conduct in Human Research.

This protocol covers the following researchers:
Ping Yang, Mohamed Moustakim, Etaf Alkhlaifat

Conditions of Approval

1. A progress report will be due annually on the anniversary of the approval date.

2. A final report will be due at the expiration of the approval period.

3. Any amendments to the project must be approved by the Human Research Ethics Committee prior to being implemented. Amendments must be requested using the HREC Amendment Request Form:
https://www.westernsydney.edu.au/__data/assets/word_doc/0012/1096995/FORM_Amendment_Request.docx

4. Any serious or unexpected adverse events on participants must be reported to the Human Research Ethics Committee via the Human Ethics Officer as a matter of priority.

5. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the Committee as a matter of priority

6. Consent forms are to be retained within the archives of the School or Research Institute and made available to the Committee upon request.

7. Project specific conditions:
The change to the research team will need to be advised to the HREC via an amendment when this is finalised

The local contact point in the hospital needs to be advised to the HREC before the research starts

Please quote the registration number and title as indicated above in the subject line on all future correspondence related to this project. All correspondence should be sent to the e-mail address humanethics@westernsydney.edu.au as this e-mail address is closely monitored.

Yours sincerely

[redacted]

Professor Elizabeth Deane
Presiding Member,
Western Sydney University Human Research Ethics Committee

Appendix E: Doctor Information Sheet

WESTERN SYDNEY
UNIVERSITY

Doctor Information Sheet – General (Extended)

Project Title: A Sociolinguistic Study of Doctor-Patient Interaction in Healthcare Settings: A Jordanian Perspective.

Project Summary:
You are invited to participate in a research study being conducted by E'taf Alkhlaifat, a PhD student at Western Sydney University under the Supervision of Dr Ping Yang (the principal supervisor) at School of Humanities and Communication Arts. The research focuses principally on bilingualism among doctors during medical encounters who use a medical language based on English and a health jargon. To achieve the study objectives, the researcher will observe the doctors during interaction with their patients using tape recording and video recording and she will conduct an interview after this observation. The interview will be only audio recorded.

How is the study being paid for?
The study is being sponsored by Western Sydney University.

What will I be asked to do?
You will be observed during your interaction with your patient by the researcher using tape recording and video recording. After this observation you will be interviewed and you will be expected to answer specific questions about certain factors (verbal, non-verbal and sociocultural) in order to facilitate or hinder communication between you and your patients during medical consultation. The interview will probably require no more than 30 minutes.

What benefits will I, and/or the broader community, receive for participating?
There may not be any direct benefit to you for participating in this study, but your participation could lead to the following outcomes:
• Improve D-P interaction.
• Raise doctors' awareness of their usage of verbal and non-verbal communication with their patients.
• Raise doctors' cultural competence.
• Improvements in managing conflict (critical moments), if any.
• Contributes to the field of interactional sociolinguistics with the aim of critically examining language and sociocultural barriers in D-P interaction in Jordan.

Will the study involve any risk or discomfort for me? If so, what will be done to rectify it?
This research poses no foreseeable risks to you.

How do you intend to publish or disseminate the results?
It is anticipated that the results of this research project will be published and/or presented in a variety of forums. In publications and/or presentations, information will be provided in such a way that participants will not be identified, except with their permission. I would like to assure you that your identity will remain confidential as your actual name will not be included in my

field-notes and only me and my supervisor will have access to either the recordings or the transcriptions of our discussions.

Will the data and information I have provided be disposed of?
None of the information you provide will be shared with any other individuals besides the research team. Only the researcher (E'taf Alkhlaifat) and her supervisory panel (Dr. Ping Yang and Dr Mohamed Moustakim) will have the authority to use or access your information in this project.

Can I withdraw from the study?
Participation is entirely voluntary. If you do participate you can withdraw at any time without giving a reason.

If you do choose to withdraw, any information that you have supplied will not be given to anyone in your medical team. However, the data gained up until that point of withdrawing will not be destroyed; it will be used for the research in the thesis, with your consent only. No identifying information will be included in any reports in this study. You are free to withdraw your consent and stop taking part at any time. Not taking part in the study will in no way affect your work. This will also not affect your right to take part in other studies. The researcher will answer any questions you may have about the study. There will be no consequences in your decision to withdraw from the research study.

What if I require further information?
If you have any questions or further thoughts regarding this interview, please contact me (E'taf Alkhlaifat/ the main researcher, my mobile no is 00962777522193. You can also contact:

• The principal supervisor of this research Dr Ping Yang, his mobile number is (0061) 29772 6514 and on email p.yang@westernsydney.edu.au
• The second supervisor of this research Dr Mohamed Moustakim on email m.moustakim@westernsydney.edu.au

What if I have a complaint?

If you have any complaints or reservations about the ethical conduct of this research, you may contact myself the researcher, E'taf Alkhlaifat, mobile number is: 00962 777239308 or by

email e.alkhlaifat@westernsydney.edu.au. or the Ethics Committee through Research Engagement, Development and Innovation (REDI) on Tel +61 2 4736 0229 or

email humanethics@westernsydney.edu.au or you may contact Dr Bassam Alemami (Email: dr.bassam_alemami@yahoo.com) and his phone number is: 00962 772433224.

Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

If you agree to participate in this study, you may be asked to sign the Participant Consent Form. The information sheet is for you to keep and the consent form is retained by the researcher/s.

This study has been approved by the Western Sydney University Human Research Ethics

Committee. The Approval number is *H12492.*

Appendix F: Patient Information Sheet

WESTERN SYDNEY
UNIVERSITY

Patient Information Sheet – General (Extended)

Project Title:

A Sociolinguistic Study of Doctor-Patient Interaction in Healthcare Settings: A Jordanian Perspective.

Project Summary:

You are invited to participate in a research study being conducted by E'taf Alkhlaifat, a PhD student at Western Sydney University under the Supervision of Dr Ping Yang (the principal supervisor) at School of Humanities and Communication Arts. The research focuses principally on bilingualism among doctors during medical encounters who use a medical language based on English and a health jargon. To achieve the study objectives, the researcher will observe the patients during interaction with their doctors using tape recording and video recording and she will conduct an interview after this observation. The interview will be only audio recorded.

How is the study being paid for?

The study is being sponsored by Western Sydney University.

What will I be asked to do?

You will be observed during your interaction with your GP doctor by the researcher using tape recording and video recording. After this observation, you will be interviewed and you will be expected to answer specific questions about certain factors (verbal and non-verbal and sociocultural) in order to facilitate or hinder communication between you and your doctors during medical consultation. The interview will probably require no more than 30 minutes.

What benefits will I, and/or the broader community receive for participating?

There may not be any direct benefit to you for participating in this study, but your participation could lead to the following outcomes:

- Improve D-P interaction.
- Raise doctors' awareness of their usage of verbal and non-verbal communication with their patients.
- Raise doctors' cultural competence.
- Improvements in managing conflict (critical moments), if any.
- Contributes to the field of interactional sociolinguistics with the aim of critically examining language and sociocultural barriers in D-P interaction in Jordan.

Will the study involve any risk or discomfort to me? If so, what will be done to rectify it?

We reassure you of the following**:**

- We do not expect that you will have a bad experience in this research.
- Your privacy to sensitive, personal information is highly considered, therefore, the researcher will stop filming at any time when you raise your hands.
- If you are male and want the female researcher to leave the room or stop filming, the researcher will comply with your request immediately.
- Although you will provide your name and contact details in the consent forms, only pseudonyms will be used for all research participants and locations to avoid the inclusion of identifying features in any literature produced from this research.
- No participants will be asked to write down any sensitive issues, names will be kept confidential.

How do you intend to publish or disseminate the results?

It is anticipated that the results of this research project will be published and/or presented in a variety of forums. In publications and/or presentations, information will be provided in such a way that the participants will not be identified, except with their permission. I would like to assure you that your identity will remain confidential as your actual name will not be included in my field-notes and only me and my supervisor will have access to either the recordings or the transcriptions of our discussions

Will the data and information that I have provided be disposed of?

None of the information you provide will be shared with any other individuals besides the research team. Only the researcher (E'taf Alkhlaifat) and her supervisory panel (Dr. Ping Yang and Dr Mohamed Moustakim) will have the authority to use or access your information in this project.

Can I withdraw from the study?

Participation is entirely voluntary, and you are not obliged to be involved. If you do participate you can withdraw at any time without giving a reason.

If you do choose to withdraw, any information that you have supplied will not be given to anyone in your medical team. However, data gained up until that point of withdrawing will not be destroyed; it will be used for the research in the thesis, with your consent only. No identifying information will be included in any reports in this study. You are free to withdraw your consent and stop taking part at any time. Not taking part in the study will in no way affect your work. This will also not affect your right to take part in other studies. The researcher will answer any questions you may have about the study. There will be no consequences in your decision to withdraw from the research study.

What if I require further information?

If you have any questions or further thoughts regarding this interview, please contact me (E'taf Alkhlaifat/main researcher, my mobile number is 0777522193. You can also contact:

- The principal supervisor of this research Dr Ping Yang, his contact number is (0061) 29772 6514 and on email p.yang@westernsydney.edu.au

- The second supervisor of this research Dr Mohamed Moustakim on email m.moustakim@westernsydney.edu.au

What if I have a complaint?

If you have any complaints or reservations about the ethical conduct of this research, you may contact myself the researcher, E'taf Alkhlaifat, mobile number is: 00962 777239308 or by email e.alkhlaifat@westernsydney.edu.au or the Ethics Committee through Research Engagement, Development and Innovation (REDI) on Tel +61 2 4736 0229 or email humanethics@westernsydney.edu.au or you may contact Dr Bassam Alemami (Email: dr.bassam_alemami@yahoo.com) and his phone number is: 00962 772433224.

Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

If you agree to participate in this study, you may be asked to sign the Participant Consent Form. The information sheet is for you to keep and the consent form is retained by the researcher/s.

This study has been approved by the Western Sydney University Human Research Ethics Committee. The Approval number is *H12492*.

Appendix G: Consent Form for Doctors

WESTERN SYDNEY
UNIVERSITY

Consent Form for Doctors – General (Extended)

Project Title: *A Sociolinguistic Study of Doctor-Patient Interaction in Healthcare Settings: A Jordanian Perspective.*

I hereby consent to participate in the above-named research project.

I acknowledge that:

• I have read the participant information sheet (or where appropriate, have had it read to me) and have been given the opportunity to discuss the information and my involvement in the project with the researcher/s.

• The procedures required for the project and the time involved has been explained to me, and any questions I have about the project have been answered to my satisfaction.

I consent to:

☐ *Participating in an observation.*

☐ *Participating in an interview.*

☐ *Having my information audio recorded.*

☐ *Having my information video recorded.*

I consent for my data and information provided to be used in this project and other related projects for an extended period of time.

I understand that my involvement is confidential and that the information gained during the study may be published and stored for other research use, but no information about me will be used in any way that reveals my identity.

I understand that I can withdraw from the study at any time. Data gained up until that point of withdrawing will not be destroyed it will be used for the research in the thesis if I agree.

Signed:

Name:

Date:

This study has been approved by the Human Research Ethics Committee at Western Sydney University. The ethics reference number is: *H12492*

What if I have a complaint?

If you have any complaints or reservations about the ethical conduct of this research, you may contact the researcher (E'taf Alkhlaifat) mobile number is: 00962777239308 or email e.alkhlaifat@westernsydney.edu.au or you may contact Dr Bassam Alemami (Email: dr.bassam_alemami@yahoo.com) and his phone number is: 00962 772433224.

Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

Appendix H: Consent Form for Patients

WESTERN SYDNEY
UNIVERSITY

Consent Form for patients – General (Extended)

Project Title: *A Sociolinguistic Study of Doctor-Patient Interaction in Healthcare Settings: A Jordanian Perspective.*

I hereby consent to participate in the above-named research project.

I acknowledge that:

• I have read the participant information sheet (or where appropriate, have had it read to me) and have been given the opportunity to discuss the information and my involvement in the project with the researcher/s.

• The procedures required for the project and the time involved has been explained to me, and any questions I have about the project have been answered to my satisfaction.

I consent to:

☐ *Participating in an observation.*

☐ *Participating in an interview.*

☐ *Having my information audio recorded.*

☐ *Having my information video recorded.*

I consent for my data and information provided to be used in this project and other related projects for an extended period of time.

I understand that my involvement is confidential and that the information gained during the study may be published and stored for other research use, but no information about me will be used in any way that reveals my identity.

I understand that I can withdraw from the study at any time. Data gained up until that point of withdrawing will not be destroyed; it will be used for the research in the thesis if I agree.

Signed:

Name:

Date:

This study has been approved by the Human Research Ethics Committee at Western Sydney University. The ethics reference number is: *H12492*

What if I have a complaint?

If you have any complaints or reservations about the ethical conduct of this research, you may contact the researcher (E'taf Alkhlaifat) mobile number is: 00962777239308 or

email e.alkhlaifat@westernsydney.edu.au or you may contact Dr Bassam Alemami (Email: dr.bassam_alemami@yahoo.com) and his phone number is: 00962 772433224.

Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

Appendix I: Transcription symbols

Notational symbol	Meaning
{ }	Used to describe events or activities going on with the utterance
L ↑	Speaker leans forward while talking
L ↓	Speaker leans backward while talking
L ←	Speaker leans to the left while talking
L →	Speaker leans to the right while talking
☉→	Speaker is gazing towards the other party
☉ ☽	Indicates mutual gazing
☉ *x*	Indicates that the speaker stares at an object (e.g. to a body organ).
☺	Indicates the speaker is smiling while speaking
/ \	Symbolizes the upward and downward nodding of head, respectively
£	Indicates the speaker is laughing
↑	Marks sharp rises in pitch or tone of voice
! !	Indicates the speaker is interrupting
👇	Down pointing backhand index
👉	Right pointing backhand index
✊	Clenching the fist
¥	Indicates the speaker is bending/straightening the torso
::	Indicates the speaker pauses or remains silent

Appendix J: Non-verbal doctor behaviour observation chart

Day/ Time	Doctor's name	Non-verbal Behaviours	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total
		Nods head																					
		kinesic cues to patient																					
		Close proximity to patient																					
		Touches patient																					
		Makes eye contact																					
		Expands body posture																					
		Speech interruption																					
		Uses high-pitched voice																					
		Smiles at patient																					
		Frowns at patient																					

Notes: