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Critical Discourse Analysis of Medical Instructions

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Abstract:

The language used to describe anatomical structures, ailments, processes, and medical procedures and treatments is known as medical terminology. Medical jargon can be overwhelming at first, but you can simply unlock the meaning of thousands of terms once you know their regular structure and the definitions of several frequent word parts.

Medical language is important because every one of us experienced the role of speaking to a doctor. This language has its own features and aspects. This study has set itself the task of making a CDA analysis of medical instructions found in Doctor-patient conversation during corona pandemic.

The study concludes that The vocabulary and features of the medical language make it unique among other special types of languages. There are numerous medical terminology and expressions in this language. This phrase might be characterized as challenging, meaning that it requires context to be comprehended. A lot relies on the contextual cues. In order to fully explain and interpret this language, a variety of components come together.

Discourse devices abound in the text that was previously examined. conversation devices that are most frequently used are code switching, directive language, empathetic communication, and opening up conversation. Since they are an element of this language, they are common. The physician must initiate communication in order to set the stage for the discussion. Additionally, he must demonstrate empathy since he psychologically requires this.

Regarding code swapping, it occurs naturally as a result of the English language they learn and utilize for work. The terminology in the directive is necessary due to the nature of the doctor's job. They are in a position where they must provide instructions and directives.

Regarding appeals to dread, this occurs as a result of their dealings with cases that terrify them as human beings. Doctors also prefer to communicate in both direct and indirect ways.

1. **Introduction**

Any field, including athletics, music, medicine, and so on, has a unique professional register that, is sometimes incomprehensible to the general public or "the uninitiated." The "witch doctor" utters his incantations and casts his spells using magic language, which is his own unique register, even in the metaphysical world. While this kind of language use among experts might facilitate communication, it can also obfuscate information and frighten non-specialists. The use of language by specialists can create an emotional barrier between participants in a conversation, much like it does in a doctor-patient setting (Armani, 2007:106).

2. The language of medical instruction

Greek, Latin, and English are all used in the medical field. For example, the medical area has a large vocabulary borrowed from Latin. Therefore, one field of study where Latin has unquestionably found use is medicine (Chabner, 1996: 67).

It was uncommon to find a medical treatise written in a language other than Latin until the end of the Middle Ages. Modern languages, however, started to acquire traction starting in the sixteenth century. The influence of Latin on medicine was so strong that, in France, a physician was actually prosecuted and denied the right to practice medicine due to his poor grasp of the language (Fairclough, 1988:59).

However, as time went on, medical professionals grew more and more unsatisfied with teaching and practicing medicine using Latin, believing it to be a significant barrier to comprehension and communication when employed in clinical education. When renowned Viennese physician J. Skoda was compelled to translate his first lecture into Latin at the last minute, he became enraged and declared, "medicinam a linguae Latinae onere liberare conabor," which translates to "I shall strive free medicine from the burden of Latin," marking the height of Latin's influence on medicine in the 1840s (Qtd in Schipperges 1988:59). Although this goal is headed toward reality, it may never come true because it is unlikely that Latin and medicine will ever be separated.

Latin has a long history in medical terminology and, by extension, in the medical field. Nevertheless, Latin's impact on medicine has diminished over time. Latin is still an essential component of medicine today, just as it was hundreds of years ago, according to the ancient Neo-Latin proverb "Invia est in medicina via sin lingua Latina" (the way without Latin is impassable in medicine) (ibid).

Despite the fact that Latin is still used in medicine, Davi-Ellen Chabner explores the phonetics of Latin and English word combinations and proposes methods for estimating medical word meanings. For instance, the word "gastroenterology" comes from the root "gastr," which means "stomach," the root "enter," which means "intestines," and the suffix "-logy," which means "process of study (ibid)

The language used by medical professionals is influenced by a multitude of factors. Given the volume of writing doctors undertake on a daily basis, medical language is used to streamline complicated medical procedures, convey signals (subtly or otherwise) to other medical personnel regarding patients or colleagues, and communicate or write fast to save time (ibid).

3. The medical language after corona pandemic

March 2020 has emerged as a turning point in the form and caliber of communication. In the past, the media has covered current events, but never before has the ongoing phenomenon had such a significant impact on journalistic debate as it did with COVID-19. Nearly instantly, new terminological phenomena with particular legal or medical connotations entered common parlance through the mass media and played a significant role in narratives associated to pandemics (Chabner, 1996: 54).

The introduction of new legal laws as a result of the pandemic's unanticipated outbreak has had a significant impact on the structure of the linguistic alterations already discussed. In 2020, everyone has seen the impacts of the epidemic on language and society. In linguistics, we examine a range of elements, including political, cultural, and social forces, that affect language. Linguists from all across the world will undoubtedly be researching the coronavirus outbreak and the new vocabulary it produced for many years to come. The epidemic gave rise to an intriguing debate over the various meanings of the

terms "social distancing" and "physical distancing." Prior to delving into the subtleties of distancing, let us examine the reasons behind language changes and how they affect communication in unique situations like a pandemic (ibid).

Recent years have seen an acceleration of globalization and the emergence of neologisms due to the unprecedented speed at which technology has grown. Thanks to the internet and social media, we are able to communicate and produce more information than ever before, and our freshly created words and phrases can be seen by people all over the world. Along with less frequent words that were already in use, the COVID-19 epidemic has led to the usage of numerous new words and phrases that have spread nearly as quickly as the virus (ibid).

4. CDA

According to Widdowson (2007), CDA is an approach that focuses on how language is used—and abused—to exert sociopolitical power, ideology, and social belief. Rahimi and Riasati (2011), referenced in Fairclough (1995), state that the analysis of both opaque and transparent structural relationships of dominance, discrimination, power, and control as they appear in language is at the core of CDA. The goal of CDA is to methodically investigate the frequently ambiguous connections between discursive practices, texts, and events, as well as more general social and cultural structures, relationships, and processes. Finding the connections between language, society, power, ideology, values, and attitudes is the purpose of CDA (Van Dijk, 2008).

According to Amerian and Fateme (2014), CDA is a field of study that reveals political, social, and both transparent and hidden norms and values. To free ideologies, hegemony, dominance, and social powers, CDA investigates social and political environment.

Elhami (2012), on the other hand, describes CDA as an interdisciplinary type of analysis that examines the internal relationships inside discourse as well as the dialectical relationships between speech and other objects, elements, or moments. In contrast, Rahimi and Riasati (2011) characterize CDA as a methodology that

enables scholars, students, and educators to examine textual components at both the macro and micro linguistic levels.

It examines textual grammatical structures at the microlinguistic level. Conversely, CDA examines language features that go beyond grammatical structures at the macro level, including authors' attitudes, hedges, and other similar aspects, as well as the meaning and connotation of words and their metaphorical roles. The explanation of CDA cannot be provided by the analysts' and researchers' definitions alone. It must be clarified and comprehended as a theory as well as a methodology. In addition to providing an explanation of discourses in social context and their interpretations, CDA also explains how and why discourses function (Chouliaraki & Fairclough, 1999).

It is necessary to define critical, discourse, and analysis before CDA can be regarded as a method. This is a result of the various and contentious interpretations of these phrases. The term "critical" in CDA refers to the interaction with power dynamics (Calkin, 2014). In addition to its function in revealing covert power dynamics, language plays a major part in the construction of the word, exposing and contesting social injustices that are perpetuated and reinforced. Discourse is a contentious and debatable term. Discourse with a small "d" is about language in use, or how language is employed in a social environment, according to Gee (1990). It provides a forum for talking about language at a level higher than sentences, enabling analysts to take into things that are happening in the language.

4. **Conversational discourse analysis**

Analysis of Conversational Discourse Conversation analysis is one of the main fields of research in discourse analysis. It looks at how people carry out and handle their regular encounters with one another as well as spoken discourse analysis. You could think of conversational analysis as a method for dissecting spoken dialog. When participants in a conversation manage their interactions and decide who can talk and when, researchers attempt to record these observations. It is believed that conversation is a process rather than a final product (Elhami, 2012: 64).

Conversation analysis can be applied to a variety of settings, including court proceedings, card games, phone talks, interviews, and regular social encounters with loved ones. When analyzing conversations, one must understand that there are no set rules. For example, a greeting may elicit a response, but occasionally neither the greeting nor the response may occur as expected (Cook, 2004, p.52, Paltridge, 2012, p.90, Reed, 2011, pp.2-3). The talks that occur in children's books are the main topic of this essay. Children actively create language, but the language they create depends on their cultural understanding of social interactions, their conception of social identities, and their understanding of their own role in society.

Here, it is important to note that child discourse differs from adult discourse in that the latter helps kids develop their unique personalities and social identities, which highlights the significance of kid discourse. Why is child discourse essential, one might wonder? Well, child discourse examines the kid's surroundings as an active component of socialization theory. According to Kyratzis and Cook-Gumperz (2003), children organize their social encounters and experiences through language. They construct their identity, power, and social aspirations through discourse in context. The goal of conversational discourse analysis is to uncover the interactions' nonliteral meaning. It looks for and detects social acts that are carried out (ibid).

It is possible to argue that since social contexts are where conversation takes place, social life's orderliness and our capacity to understand and respond to the social talks we engage in or witness are byproducts of collective human activity. This does not imply that we all comprehend and interpret a communication in the same manner, though. There's always more than one side to a story, and this exchange can be interpreted in a variety of ways. Understanding how others define the context in which a communication is taking place might help address the issue of not everyone being able to comprehend it in the same manner (ibid).

To help clarify one's comprehension of the situation, one can attempt to read the other person's verbal conduct. Conversationalists can act on the knowledge they come to based on what is discussed (Hemmersley, 2003, p. 754).

5. **Models of CDA analysis**

6.1. Fairclough model (1995)

Three interrelated analytical procedures are linked to three interrelated discourse aspects in the Fairclough (1989, 1995) paradigm for CDA. One of these three elements is the subject of analysis, which can include verbal, visual, or verbal plus visual materials. 2 The means by which humans produce and utilize the object (writing, speaking, designing, as well as reading, hearing, and seeing). 3 The sociohistorical conditions governing these mechanisms. According to Fairclough, every one of these elements needs a different kind of investigation. There are three categories of analysis: social (explanation), text (description), and processing (interpretation). This approach is beneficial because it allows you to focus on the signifiers that comprise the text, including the particular language choices, their arrangement, sequencing, and so forth. (Fairclough, 1995: 56).

It also requires you to understand how these decisions relate to the circumstances that made that statement feasible and how these decisions were historically made. This is another way of expressing that texts are products of socially constructed discourses and that the processes of production and reception are subject to social restrictions. The reason Fairclough's method of CDA is so beneficial is because it provides multiple points of analytical entry. As long as an analysis is finally included and shown to be mutually explanatory, any kind of analysis can be applied. In the linkages, the analyst finds the fascinating patterns and disjunctions that require documentation, understanding, and explanation (ibid).

6.2. Discourse devices

a. Opening up discourses

Even when the topic of talk is the same, no two people can ever have the exact same conversation twice. Nonetheless, certain conversational units share similarities and appear to be based on the same techniques. Openings and closings are the points in a discourse where these techniques are used (Brydon, 2002, p.2). Talks have structured beginnings and ends; they are not just

spontaneous exchanges of ideas. Adjacency pairs are used by conversation participants to start topics including greetings, questions, offers, and requests.

b. *Showing empathy*

The capacity to empathize with others, see things from their perspective, and put oneself in their shoes is known as empathy. It basically involves placing oneself in another person's shoes and experiencing their emotions. Empathy is the ability to immediately picture and experience what another person is going through when you witness them going through a difficult time, such as after they have lost a loved one (ibid).

Even while people are often highly perceptive to their own emotions, it can be challenging to see things from another person's perspective. It is possible to "walk a mile in another's shoes," so to speak, when one has empathy. It enables people to comprehend the feelings that other people are experiencing. An individual may experience empathy in a variety of ways. There are three different types of empathy (ibid):

• Affective empathy is the capacity to recognize and react properly to the feelings of another person. This kind of emotional awareness might cause someone to feel personally distressed or worried for the welfare of another person.

• Somatic empathy is the ability to feel what another person is feeling on a physical level. Sometimes, people can literally feel the emotions of another person. You could blush or feel queasy when you witness someone else feeling ashamed, for instance.

• Cognitive empathy is the capacity to comprehend the thoughts and feelings of another individual in light of the circumstances. This has to do with thinking about what other people are thinking, or what psychologists call the theory of mind.

d. *language switch*

Code-switching, also known as language alternation, is the phenomenon in linguistics where a speaker switches between two or more languages, or language

varieties, throughout a single conversation or scenario. In contrast to plurilingualism, which describes a person's capacity to use many languages, code-switching is the practice of utilizing multiple languages simultaneously. When speaking with one another, multilingual people (those who speak more than one language) occasionally incorporate aspects from different languages. Using many language varieties in a way that is compatible with each variety's syntax and phonology is known as code-switching (Gee, 1990: 45).

In synthetic languages, code-switching can occur inside words, phrase fragments, sentences, or individual morphemes. On the other hand, some linguists distinguish terms or morphemes borrowed from another language from other forms of code-switching. Similarly, code-switching can happen when the context in which someone is speaking changes. Speaking in a different language or altering one's vocabulary to better suit the audience are two examples of code-switching. Code-switching is used in a variety of contexts, such as when a speaker has to convey an attitude toward something or is unable to express oneself clearly in one language. A number of sociological and linguistic theories have been established to explain the rationale underlying code-switching (ibid).

e. direct questions

A direct inquiry always ends in a question mark and is one that can have a response (i.e., it is not a statement). As an illustration, have you ever texted the incorrect person? (Lee, 2000: 45)

f. Indirect Questions

A question that is tucked away in a statement or another query is known as an indirect question. A question mark may not appear at the conclusion of a phrase that poses an indirect question. Examine the following example:

• Lee wants to know if the ticket is still good (Lee, 2000: 33).

g. Appeal to Fear

An appeal to fear is a fallacy where someone tries to increase fear of an alternative in order to create support for their position. It is also known as argumentum ad metum or argumentum in terrorem. An appeal to dread is a

typical method in politics, marketing, and the media (communication). It is associated with the larger strategy of fear appeal (Damer, 2003: 78).

6. Developing the Model of analysis

The model developed in this study is an eclectic model based on fair clough model and the discourse devices discussed above.

7. Data description

The data scrutinized in this study are medical instructions found in the conversations between the doctor and the patient. The theme of these conversations is the effects of corona on the patient's body. The conversations are short ones and they take the form of turn-taking.

8. Data Analysis

The data analyzed are 10 situations taken from conversations recorded by the researcher for Iraqi doctors dealing with Patients. Only five situations are analyzed in details here and the other five situations are analyzed in an overall way.

9.1. Detailed Analysis of the Data

Text 1.

Doctor: hello Zeena, شلونج I hope تحسنتي

Patient: هلو دكتور لا والله نفس الشي, الشم مدا يرجعلي

Doctor: عادي, every thing will be OK.

Patient: دكتور النحول هم بعده بالإضافة للالم بالعيون

Doctor: لا, هذي ماالهه علاقة بكورونا, this is one of the side effects of this medicine

The text above is taken from a conversation between Iraqi doctor and a female patient suffering from corona virus. To describe the text above one can say it is a medical text using simple language that's a way from highly sophisticated medical terms. The doctor tries to show off by using his English language while

talking with the patient. It seems that the patient could not understand the English words pronounced by the doctor so she did not reply.

As for the discourse devices used in this text, it is opened with greeting. The doctor greets the patient first and then he show empathy by saying " I hope تحسنتي" the doctor is trying to show the patient that he is empathetic. The doctor switches between English and Arabic and this happens for different reasons, one of them is that his profession requires this, the second reason is to show off. The doctor also uses direct questions in his speech with the patient so as to open up the conversation.

Text two

Doctor: إهلا حجيه, خيرج look pale

Patient: دكتور متت ماكدر اتنفس ولا اكدر اكل ولا اتحرك

Doctor: اكو الم بال " chest يعني بالصدر

Patient: أي دكتور وبالبلعوم

Doctors: سويلي ذني tests وتعالي , خلي اشوف خاف اكو خثرة

Analysis

The conversation above is from an exchange between a female corona virus sufferer and an Iraqi doctor. The paragraph above can be characterized as a medical text because it uses straightforward English instead of highly technical medical terminology. Speaking to the patient in English is an attempt on the part of the doctor to brag. The patient did not respond, presumably because she was unable to grasp the doctor's pronunciation of the English words.

The conversation is opened by greeting and this is common in the Iraqi culture. Iraqi people take care of such beginnings in such contexts. One of the discourse strategies used by the doctor is showing empathy though the utterance "you look pale".

Doctors often show empathy in their conversations with the patients and this is because they feel that the patient need this type of feelings. There is also code

switching in the text above made by the doctor and ignored by the patient since she does not get the meaning. The doctor also uses direct questions with the patient because it is the easiest type of questions in such a context. The doctor appeals to fear when he tells the patient that he expects that there is a " blood clot".

Text three

Doctor: *اهلا اخي مرحبا, ارفع ال" mask" على انفك واقترب من الميز*

Patient: *مرحبا دكتور شلونك, دكتور كورونا دمرتني والكحة ديطلع وياهه دم*

Doctor: *خلي اقيس "temperature"*

Patient: *دكتور حرارتي مجاي تنزل*

Doctor: *تستخدم mask" على تحافظ و sterilization*

Analysis

This text comes from an exchange between an Iraqi physician and a male corona virus patient. One could characterize the paragraph above as a medical text that steers clear of extremely technical medical jargon by employing straightforward English. When speaking with the patient, the doctor makes an effort to brag about his command of the English language. The reason behind the patient's silence was likely her inability to grasp the doctor's pronunciation of the English terms.

As common, the text starts with greeting, the doctor greets his patient and shows a nonverbal empathy through helping the patient to stand and move. There is a clear language switching made by the doctor but it is simple one since he uses simple English words like "mask, sterilization, temperature" and it seems that the patient understands these words since he replies. The doctor uses the directive language here because the context requires this.

Text four

Doctor: *اهلا أستاذ احمد شلونك, تبين افضل*

Patient: *اهلا دكتور, لا والله دكتور حرارتي ما نزلت ابد*

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Doctor: " بله خلي اقيس temperature, please open your mouth

Patient: 39 دكتور قستهه بالبيت كانت

Doctor: عندك sore throat ؟ اقصد احتقان بالبلعوم؟

Patient: أي دكتور والم بالصدر وصداع

Doctor: ? مستمر لو يروح ويجي headache

Patient: مستمر دكتور

Doctor: قوي "viral load" يبدو انو انت ماخذ

Analysis

This text is taken from a conversation between a doctor and an English teacher patient. The text is not complex and seems that the doctor knows that the patient is an English teacher and speaks some English words and sentences. The text above uses a language that is full with medical terms.

The conversation starts, as usual, with greeting. This time the doctor mentions the name of the patient to show that he is remembering his case. The doctor also show empathy through uttering the sentence "تبين افضل". The doctor makes a successful language switching in his conversation because he is well aware that the patient can get him. So the doctor not only uses English words but also uses whole sentences with no translations. The doctor also uses direct questions and this is usual in medical language. The doctor is after getting information about the case and direct questions serve this purpose. The directive language is clear in the doctor turns because he is the one who must direct in this context and not the patient. The doctor, at the end of the conversation, appeal to fear when he says " يبدو انو انت ماخذ "viral load" قوي".

<u>Text five</u>

Doctor: السلام عليكم شلونج اختي البسي mask, gloves وتعالي للفحص

Patient: دكتور اختنك من الماسك

Doctor: ميخالف هي تمنع انتشار العدوى, شنو اعراضج

Patient: *دكتور حرارة و الم بالبلعوم وكحة وقيء ونحول*

Doctor: *how many times a day? كم مرة باليوم قيء؟*

Patient: *هواي دكتور*

Doctor: *الفايروس ضاربلج الجهاز الهضمي*

9.2. Statistical Analysis of the data

The data scrutinized in the paper are statistically analyzed here:

The item	Frequency	Percentage
Opening up discourses	10	100%
Showing empathy	10	100%
Code switching	10	100%
Direct questions	8	80%
Indirect questions	2	20%
Appeal to fear	5	50%
Directive language	10	100%

9. Conclusions

The medical language is a special type language that is distinct for its words and aspects. This language is full with medical terms and phrases. To describe this language one can say that it is difficult type of language that cannot be understood without a context. It depends a lot on the contextual clues. To explain and interpret this language, different factors work together to complete this process.

The text analyzed above are full of discourse devices. The most frequent discourse devices are opening up discourses, showing empathy, directive language and code switching. They are frequent because they are part of this language. The doctor needs to open discourse as a pavement for the conversation.

And he needs to show empathy because he psychologically needs this tactic. As for code switching, this happens spontaneously because of the English language they study and use in their carrier. Concerning the directive language, the doctor's profession requires this. They are in a position that involve them in giving directions and instructions.

As for appeal to fear, it happens because of their dealing with cases that frighten them as humans so they sometimes appeal to fear. Direct and indirect language are also preferred by doctors.

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