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Investigating Deixis in Medicine Leaflets

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Abstract

Within the field of linguistics, pragmatics is a subfield that focuses on the utilization of language. This article focuses on the ways in which the transmission of meaning is dependent not only on the linguistic understanding of a language user but also on the context of an utterance in terms of the speaker's intention. This research therefore intends to describe the application of deixis in the process of developing medical leaflets. In this research, the questions that need to be addressed are as follows: 1) what kinds of deixis are realized in the medical leaflets? 2) What are the pragmatic meanings of deixis that are used in the medical leaflets, and 3) Which types of deixis are used the most frequently in the data that has been collected? Consequently, the aim of the study is to determine the deixis forms and meanings that are utilized in the medical leaflets. A number of pragmatists, including Levinson, Yule, Mey, Leech, and others, are utilized as a model of the study. With regard to the description of the utilization of deixis in written medical leaflets, this research makes use of both a qualitative and a quantitative approach. Through a random selection process, forty medical pamphlets are selected for collection. It was postulated in the study that the two types of deixis that are most significant in the process of composing medical leaflets are the person and the time. This research comes with a variety of findings that provide evidence that supports the hypotheses that were tested.

Keywords: Deixis, Leaflet, Pragmatics, Temporal, Personal

تقصي الاشارات في النشرات الطبية

أ.م.د هاني كامل نعيمه

قسم اللغة الإنكليزية، كلية التربية للعلوم الإنسانية، جامعة ذي قار، ذي قار، العراق

الملخص:

في مجال اللسانيات، تعد التداولية الحقل لغوي الذي يركز على استخدام اللغة. في هذه المقالة يتم التركيز على الطرق نقل المعنى ليس فقط على الفهم اللغوي لمستخدم اللغة ولكن أيضاً على سياق الكلام من حيث نية المتحدث. ولذلك يهدف هذا البحث إلى وصف تطبيق الاشارات التداولية في عملية كتابة النشرات الطبية. في هذا البحث فإن الأسئلة التي يجب الإجابة عليها هي كما يلي: (1) ما هي أنواع الإشارية التي تستخدم في النشرات الطبية؟ (2) ما هي المعاني التداولية للإشارات المستخدمة في النشرات الطبية، (3) ما هي أنواع الاشارات الأكثر استخداماً في البيانات التي تم جمعها؟ وبالتالي فإن هدف الدراسة هو تحديد الصيغ والمعاني الإشارية المستخدمة في النشرات الطبية، إضافة الى ذلك فقد تم الاعتماد على نخبة من علماء اللسانيات التداولية، بما في ذلك ليفينسون، ويول، وماي، وليتش، وآخرين، كنموذج لتحليل بيانات للدراسة، كما واعتمدت الدراسة التحليل النوعي والكمي للبيانات من خلال عملية اختيار عشوائية إذ تم اختيار أربعين نسخة للنشرات الطبية. فيما يخص فرضيات البحث. فقد افترضت الدراسة أن نوعي الاشارات الأكثر أهمية في عملية كتابة النشرات الطبية هما الاشارات الشخصية والزمانية. واخيراً فقد توصلت الدراسة الى عدة نتائج داعمة لفرضيات الدراسة.

الكلمات المفتاحية: الاشارات، النشرات الطبية، التداولية، الزمانية، الشخصية

1-Introduction

Language is essential to human communication. Effective communication takes education and experience. Conversational actors are interaction components. Communication needs parties to negotiate meaning. Meaning analysis can't be relied on anything other than language, just like linguistic proof. A speaker's semantic content may not express their full meaning. Communication involves sending and receiving ideas, emotions, wishes, and intentions. Pragmatically, the listener can extrapolate meaning from what is said, which helps achieve the conversation's goal. Pragmatics studies interpersonal communication in linguistics. Medical leaflets represent one of the fields in which language, namely the pragmatic meaning, is used carefully to convey certain intentions and to give important messages. Thus, this study attempts to answer the questions: 1) what kinds of deixis are realized in the medical leaflets? 2) What are the pragmatic meanings of deixis that are used in the medical leaflets, and 3) Which types of deixis are used the most frequently in the data that has been collected? Consequently, the aim of the study is to determine the deixis forms and meanings that are utilized in the medical leaflets. The study hypothesizes that deictic expressions are very significant and expressive in writing medical leaflets, namely personal and temporal types. As a model of analysis, a number of pragmatists, including Levinson, Yule, Mey, Leech, and others, are utilized are adopted to analyze the selected data. As far as the selected data, a random sample of medical leaflets are chosen, forty medical ones This study comes with a variety of findings that provide evidence that supports the hypotheses.

2-Pragmatics

The field of pragmatics, which encompasses the examination of language in relation to its context, is crucial for comprehending the meaning and usage of words and phrases. Pragmatists derive significance from material that is context-dependent or from the emergence of logical structures. Mey (1996, p. 35) asserts that the foundational concepts of pragmatics can be traced back to Charles Morris's (1938) characterization of pragmatics as the examination of the associations between signals and interpreters. According to Morris, the concept of practicality encompasses various aspects of human communication, including psychological, biological, sociological, and societal components. According to Levinson (1983, p. 39), pragmatics can be defined as the examination of the grammaticalized connections between language and context within the structure of a language. According to Yule (1996), the field of pragmatics encompasses the examination of the correlation between linguistic structure and idiomatic expression. Deixis, a fundamental concept in pragmatics, is also encompassed within linguistic performance. Deixis is a prominent subject matter within the field of pragmatics, wherein reliance solely on contextual information may prove insufficient for comprehending a deictic expression.

3-Context and deixis

Leech (1983: 13) claims that an utterance's context includes its physical and social surroundings. Thus, a speaker and listener likely share a tacit understanding that helps the listener understand the speaker's meaning. Context is a language process that helps people understand hidden implications and articulate specific interpretations, especially explanatory ones, according to Dilley (1999: 3). Context is crucial to pragmatics. It greatly impacts word and sentence comprehension (Cruse, 2006: 35). Chapman (2011: 40-41) states that context strongly affects deictic statement meaning. This is because deictic phrases depend on context. Deictic phrases, according to Bühler (1934), specify referents' geographical or temporal locations. Deixis refers to language usage that alters with context. Many consider deixis a branch of pragmatics because it relies on context for interpretation. Speaker, addressed, and their geographical and temporal locations are context-dependent (Levinson, 1983).

4-Deixis

Greek deixis means "pointing through language" or "pointing" with language (Yule, 1996:9). Deictic expressions, markers, phrases, and indexicals signal or point (Levinson, 1983:54; Marmaridou, 2000:65). Deixis is a language phenomenon in which a word or phrase links an utterance to temporal, geographical, or human referents, according to the Longman Dictionary of Language and Teaching Applied Linguistics. Yule (1996) says deixis is a Greek technical term for "pointing" with linguistic instruments. Indexical pointing is a deictic expression. Any verbal expression that points to anything is a "deictic expression". Fillmore (1997:61) calls deixis "the formal qualities of utterances that are affected by certain components of the communicative act in which they are engaged." Author classifies deixis as personal, geographical, chronological, discursive, or societal. Labels usually apply to Indo-European languages, with English as the main focus. Deixis occurs when the speaker's environment affect how they talk about something. Language has explicit pragmatic context reliance and implicit semantic self-reference, according to Searle (1991:221). Speakers utilize indexical referring phrases to stress the speech-subject relationship. The person who uses "I" is "I." "You" refers to the speaker's target. The first use of "here" is where it was said. In this case, "now" means when the phrase was said. 'Yesterday' means the day before the word was spoken, etc. Indexical phrases relate to themselves like deliberate states and occurrences like visual perception. Deixis is widely recognized as a crucial component of language systems in a variety of cultures and linguistic contexts around the world. According to Chapman (2011), deictic expressions are language elements that attempt to define the boundaries between pragmatics and semantics, notably in terms of establishing existence and placement. These linguistic terms help to connect the use of language to the precise situation in which it is employed (Al-Ebadi, 2012).

4-1Categories of Deixis

In the realm of linguistics, it is widely acknowledged that several utterances across all languages possess an inherent ambiguity that can only be resolved by an understanding of contextual factors such as the temporal dimension, location, and the individuals involved in the speech act. Words such as "I," "you," "we," "this," "that," "here," "there," "today," "tomorrow," and so on are all linguistically categorized and require the listener to ascertain the speaker's identity, temporal context, and spatial location in order to comprehend the intended message. Several deictic categories have been identified (Al-Ebadi et al., 2020). According to Levinson (1983, p. 62), the conventional classifications of deixis encompass the domains of person, location, and time. Levinson (1983:62-63) introduces two more deictic categories, namely social and discourse deixis.

4-1-1 Person Deixis

Person deixis refers to the identification and assignment of interlocutors or participation roles in a given speech occurrence. The phrase "person deixis" refers to the use of deictic reference to signify a referent's participatory role, which includes the speaker, the addressee, and additional referents separate from both the speaker and the addressee. The use of personal pronouns such as 'I, you, he, she, it' helps to grammaticalize the category of person in natural language. These pronouns are used to refer to the speaker, the addressee, and the third party, in that order (Al-Ebadi, & Hassan, 2020). Furthermore, Levinson (1983: 68) contends that person deixis is explicitly manifested through the grammatical categories of person, namely first, second, and third person. According to Huang (2007: 136), the expression of person deixis can be expressed through the usage of vocatives. Vocatives can also be used to express person deixis. Vocatives are linguistic components that operate as nouns and relate to the sentence's recipient(s). These vocatives include kinship words, titles, proper names, and their numerous combinations. Proper names, kinship terms, and titles serve as the mechanism by which these statements are conveyed. Honorifics often used in English include "John," "madam," "daddy," "sir," "Mr.," and "Dr.," among others, according to Huang (2007, p. 181).

4-1-2 Temporal Deixis

Language is used to establish a temporal reference point at the moment of utterance, whether spoken or written (Dylgjeri & Kazazi, 2013). Linguistic expressions about speech's temporal placement are called "temporal deixis". It determines the end of temporal points and durations in connection to utterance in a speech event (Huang, 2007, p. 144). According to Renkema (1993), time deixis is the temporal reference point used to discuss time, usually the moment of speaking. Time adverbs like 'yesterday', 'now', and 'tomorrow' and verb tenses indicate time expressions and show how events occur in a specific timeframe. Levinson (1983) also claims that most languages' time

reckoning and measurement systems are based on day and night, months, seasons, and years. Yule (1996, pp. 14–15) states that verb tense is the basic type of temporal deixis in English. English has two basic verb tenses: present and past. In the present tense, "I live here now," shows the proximal form, while in the past, "I live there then." Interpreting these statements requires knowing the moment of the speech (Abed, and Al-Ebadi, 2023). Complex time adverbials use a deictic modifier with a non-deictic measure word. Complex adverbials include 'last month', 'next year', 'this afternoon', 'last Monday', etc. This is called calendrical reckoning (Levinson, 1983).

4-1-3 Spatial deixis

The idea of place deixis, according to Levinson (1983: 79), refers to the demarcation of geographical positions in respect to reference points within a given speech event. The employment of adverbs describing location, such as "here," "there," and "anywhere," as well as demonstratives such as "this," "that," "these," and "those," is prominent in the expression of this particular deixis. The use of spatial deixis in language allows one to ascertain the location of a target in reference to one's own location and are used in many different contexts. Further instances of deixis widely used in conversation include phrases like here, there, in, on, and at. Place/spatial deixis can be explained by the use of particular motion verbs, such as "go" and "come," as evidenced in the scholarly works of Verschueren (1999: 19). The adverbs "here" and "there" and the demonstratives "this" and "that" are often seen as simple opposites, as suggested by Levinson (1983: 80) and Meyer (2009: 186). The words "here" and "this" indicate a near proximity to the speaker, while the words "there" and "that" indicate a greater distance. Furthermore, spatial deixis refers to the tangible and communal surrounds, or more specifically, the spatial context enclosing the individuals engaged in a communicative engagement (Al-Ebadi et al., 2020).

4-1-4 Discourse Deixis

Deictic statements that point to previous or subsequent sections of the discourse are referred to be "deictic" in the discourse. Connection words and phrases are those that show how one statement relates to another. It's like the speaker is providing comments on what they just said or wrote (Al-Hindawi and Al-Ebadi, 2016). Expressions like: 'but', 'hence', 'in conclusion', 'actually', 'all in all' ...etc., serve to create the discourse and to range the current utterance in a historical order. Words that refer backwards (called "anaphora") or forwards ("cataphora") in a discourse are called discourse deixis. The proximal demonstrative 'this' in the sentence "This is how birds evolved from predatory dinosaurs" foreshadows data that will be presented in the subsequent portion of the discourse. The adverb 'here' in "Here goes the same argument" is also a proximal adverb of place. As opposed to this, the distal demonstrative 'that' in "That's tonight's evening news" relates back to a prior section of the discourse (Huang, 2007, p. 172). According to Verschueren (1999: 21), discourse deixis pertains to the utilization of linguistic terms inside an utterance to reference

preceding, present, or subsequent conversation within the same spoken or written discourse. For example, phrases such as (in conclusion, on the contrary, firstly, ultimately, subsequently ...).

4-1-5 Social Deixis

What Levinson (1983:89 in Fillmore) calls "social deixis" is the part of a sentence that reflects, establishes, or is influenced by particular aspects of the social context in which the speech act takes place. It is understood as a linguistic phenomenon that communicates the social identities of people taking part in a conversation, particularly those who hold specific positions, and the social relationship between these people or one of them and other people or things mentioned in the conversation. Social deixis refers to the use of language to infer social relationships by alluding to the social rank or role of speakers and listeners (Al-Hindawi, and Al-Ebadi, 2017). Examples of Social Deixis expressed through nomenclature include both first and last names (James and Bond, respectively) and the combination of the two (James Bond). Titles derived from occupational names (such as doctor) are another type of social deixis, as are honorifics (such as Sir, Mr., Mrs., miss, and madam) and positions within specific social or professional groups (such as colonel or lieutenant). To further stress this point, we suggest utilizing address forms that include both a formal title and the individual's surname, such as (Mr. Lakoff, Dr. Cram, Lady Huxley).

5- Data analysis

This study seeks to examine the significance of employing deixis in formal discourse, specifically within medical leaflets. The objective is to analyze the underlying intentions behind the utilization of various deixis types in such speech, as well as to explore the frequency of their occurrence and their impact on the audience, whether through reading or listening.

Upon analyzing the chosen data, it has been determined that medical leaflets utilize all five types of deixis. Their usage is as follows: personal deictic words are used first (59.498%), followed by temporal deixis (32.258%), discourse deixis (3.942%), social deixis (2.150%), and finally spatial deixis (1.075%). The following table (1) displays the overall usage of deictic language in medical leaflets:

Table (1): Total Use of Deixis in Medical Leaflets

No.	Type of Deixis	Frequency	Percentage
1	Personal	1660	59.498%
2	Temporal	900	32.258%
3	Discourse	110	3.942%
4	Social	60	2.150%

5	Spatial	30	1.075%
Total		2790	

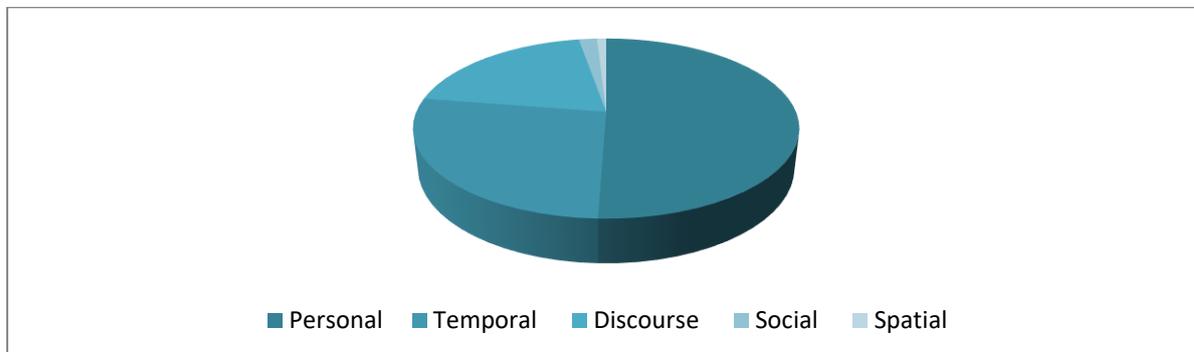


Figure (1) Use and Frequency of Deixis in Medical Leaflets

5.1 Personal Deixis: Results and Discussion

Personal deictic expressions have been extensively and conspicuously utilized. Their use varies between personal pronouns and possessive pronouns. They are utilized (1660) times, accounting for (51.234%) of the total. The use of these expressions differs between personal pronouns and possessive pronouns. The primary personal deixis utilized includes (you, it, them, your, yours, their). The use and percentages of these expressions are presented in the table and figure below:

Table (2) Personal Deixis in Medical leaflets

No.	Expression	Frequency	Percentage
1.	You	700	42.168%
2.	Your	600	36.144%
3.	It	150	9.036%
4.	Them	90	5.421%
5.	Their	60	3.614%
6.	Yours	60	3.614%
Total		1660	100 %

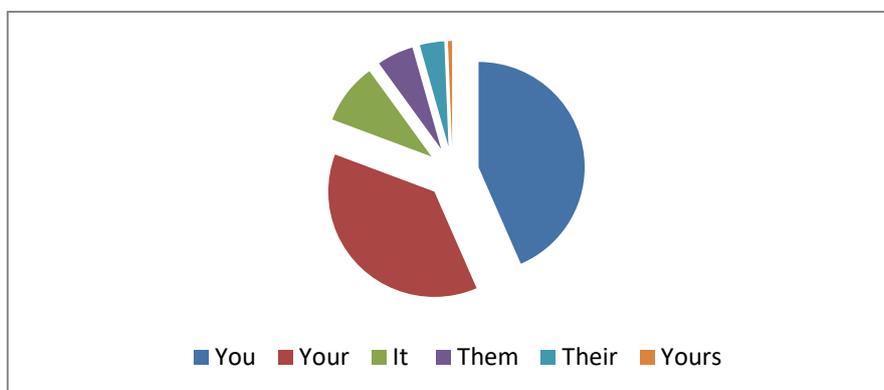


Figure (2) Use of Personal Deixis in Medical leaflets

The analysis of the chosen data reveals that there are 6 personal deictic expressions utilized in medical leaflets, as depicted in the table and figure provided above. The pronoun "you" is commonly used 42.168% to address the patient. The significance of the patient and the emphasis on his role in prescription writing is evident. Hence, we observe that medical leaflets contain the highest quantity of this substance, as evidenced by the statistics of the chosen sample. The second person pronoun 'you' is primarily used to refer to the patient. The following examples illustrate that the pronoun 'you' is used to advice, suggest or assert to the patient to do something:

- 3- *"you bruise or bleed more easily than normal...."*
"if you are an elderly patient...."
"....and you are going to faint..."

The possessive pronoun 'your' ranks second, comprising 36.144% of the total, as indicated in Table 2 and Figure 2. The significant use of the second person being addressed, specifically the patient, underscores its importance. The diverse application of the pronoun pertains to seeking medical care or seeing a physician, as well as following other crucial guidelines. In the instances below, the possessive pronoun 'your' is used to refer to the patient himself or his belongings. It is used in asking, advising or stating something:

- 4- *"please consult your doctor..."*
"if your kidneys are not working properly"
"your doctor will ensure that...."

In addition, the analysis of the data reveals that the pronoun "it" is used quite frequently overall. Additionally, the percentage of 9.036% is comparable to that of the two pronouns that came before it. Based on the findings of the analysis, it can be deduced that the utilization of this pronoun is either referring to the drug itself or to the specific instance of the case, or to the leaflet as the following examples show:

- 5- *"it may rarely cause hypersensitivity...."*
"you may need to read it again"
"it is especially important for elderly patients to report"

Furthermore, in addition to the deictic personal phrases that have been discussed earlier, which are utilized rather frequently. Based on the investigation, it is clear that there are other personal deictic phrases that are used infrequently. They are "them" (5.421%), "yours" (3.614%), and "their" (3.614%). The utilization of these expressions may refer to patients or items linked to them, such as treatment or symptoms of sickness, as the following examples show:

- 6- *"it may harm them...."*
".... Even their signs are illness are the same as yours"

5.2 Temporal Deixis: results and discussion

Temporal deictic expressions are crucial in pragmatic linguistics because they allow the speaker to convey and signal certain temporal timings dependent on the current context of the speech event. This is further supported by the present study, which clearly illustrates a significant and substantial utilization, along with a

remarkably high proportion, of this particular form of deixis. They are utilized 840 times, which accounts for 27.272%. The deictic temporal expressions that are considered to be of utmost importance include 'at once, recently, more than 24 hours, daily and other related expressions'. These expressions are illustrated in Table (3) and Figure (3) below:

Table (3) Temporal Deixis in Medical Leaflets

No.	Expression	Frequency	Percentage
1.	Prepositional clauses	420	46.666%
2.	Subordinate clauses	240	26.666%
3.	Adverbials	240	26.666%
Total		900	100 %

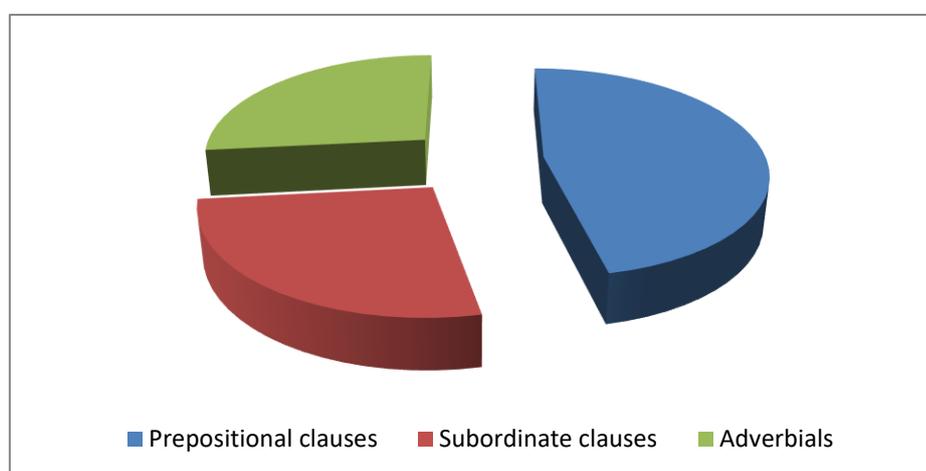


Figure (3) Use and Frequency of Temporal Deixis in Medical Leaflets

According to the findings of the analysis, medical leaflets frequently make use of prepositional phrases as temporal deictic expressions. This is illustrated in the table and figure that has been presented. It is generally agreed that temporal deixis is the most important category, and it has a utilization rate of 46.666%. When it comes to the composition of medical leaflets, the employment of temporal deixis, which is comparable to the utilization of personal deixis, brings about substantial value. This serves the purpose of elucidating the particular timings for the intake of medication and the significance of those timings in the course of the patient's recovery. Furthermore, it helps in determining the ideal time frames for undergoing therapy, which provides further benefits. These phrases like 'in the weeks, in the months, during the last two week, and so on'. The instances below illustrate the use of these prepositional phrases to indicate the time of taking the medication or the appointment for seeing the doctor again:

7- "...mainly *in the weeks* after the medicine is given..."

"...or in the 6 months following the treatment..."

"...or serve infection during the last two weeks"

According to what was mentioned before, temporal deictic expressions include subordinate clauses that are utilized in medical leaflets to convey certain timings. The utilization of it in a balanced manner, in conjunction with adverbials, is demonstrated by Table 3 and Figure 2, respectively. The total number of times in which they are used is 240, which accounts for 26.666% of the total. For the purpose of identifying the particular intervals for administering medicine, scheduling doctor appointments, and monitoring the medical state, the findings of the analysis illustrate the necessity of adding this kind of time indication in medical pamphlets. This is because it plays a significant role in defining the exact intervals. Some of these clauses are given below to explain their use in the medical leaflets; they are employed to indicate the time of treatment (8a) or other important timings of the patient's belongings (8b,c):

- 8- a- "...after treatment is stopped"
b- "...before starting your therapy..."
c- "....while you are taking this medicine..."

In addition, the findings of the study indicate that adverbs are a third category of temporal deictic expressions, in addition to the two categories that were discussed earlier. Based on the findings of the study, it can be concluded that this particular type is prominently present in the composition of medical leaflets. When compared to the utilization rate of subordinate clauses, which is at 26.666%, the utilization rate is equal. By demonstrating the significant significance of this sort of indication in the composition of medical leaflets, this proportion illustrates such significance. The findings of the analysis indicate that these indications play a significant part in the composition of medical leaflets, namely in the selection of treatment dosage schedules, frequency, and the scheduling of periodic patient visits. Among these deictic expressions, the following ones which are used to refer to important timings that belong to the patient's case; they may indicate the time of seeing the doctor (9a), to refer to the qualities of the medicine (9b) or the times of taking vaccination (9c):

- 9- a- "...please contact your doctor **immediately**"
b- "IRONTU is **rarely** associated with blood flow..."
c- "you have been vaccinated **recently**"

5.3 Discourse Deixis: results and discussion

In addition to the previous types of deictic expressions and their importance in writing medical leaflets, the analysis of the selected data shows that discourse deictic expressions are one of the types used in writing medical leaflets due to their important

role in writing medical leaflets and understanding the content of these leaflets. Through the analysis, the low percentage of its use (3.942%) shows that it is less important and necessary in writing these leaflets. These deictic discourse expressions are divided into two basic sections: the pronoun 'it' and 'the section...'. Table (4) and Figure (4) below show the use of this type:

Table (4) Discourse Deixis in Medical Leaflets

No.	Expression	Frequency	Percentage
1.	In the section...	60	54.545%
2.	It	50	45.454%
Total		110	100 %

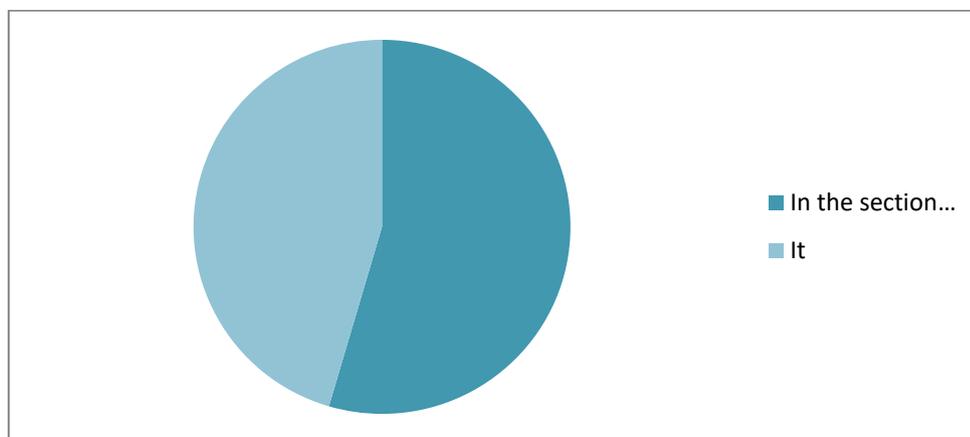


Figure (4) Use and Frequency of Discourse Deixis in Medical Leaflets

As indicated by the results of the analysis, discourse deictic expressions are uncommonly employed in medical leaflets. This is substantiated by the figure and table that have been provided. With a 3.942% utilization rate, discourse deixis is generally regarded as the less significant category. Broadly speaking, discourse expressions can be classified into two primary categories: those containing the pronoun "it" and those containing the preposition "in the section...". The use of these terms is approximated in percentages: the pronoun 'it' accounts for 45.454%, while 'in the section...' accounts for 54.545%. Their utilization functions to consult critical pieces of information, such as the instructions that have been previously alluded to. The following are instances where these expressions were utilized in medical leaflets to refer to other important pieces of information in other parts of the leaflet:

10- a- "...this includes any possible side effects not listed in this leaflets, **See section 4.**"

b- "...because **it** contains important information..."

5.4 Social Deixis: results and discussion

The fourth kind of deictic phrases that are found in medical leaflets is social deictic expressions. These expressions are discovered during the process of analyzing the individual data sets that were chosen. The use of social deictic terms is very uncommon in medical leaflets, in contrast to the use of personal and temporal deixis. In scientific medical writings, there is a lack of face-to-face interaction, which can be linked to the limited interpersonal communication that occurs between persons. The table and figure that follows provide an illustration of the percentage of instances in which this particular category of deictic terms is used in medical leaflets:

Table (5) Social Deixis in Medical Leaflets

No.	Expression	Frequency	Percentage
1.	The doctor	60	50%
2.	The pharmacist	45	37.5%
3.	The patient	15	12.5%
Total		120	100 %

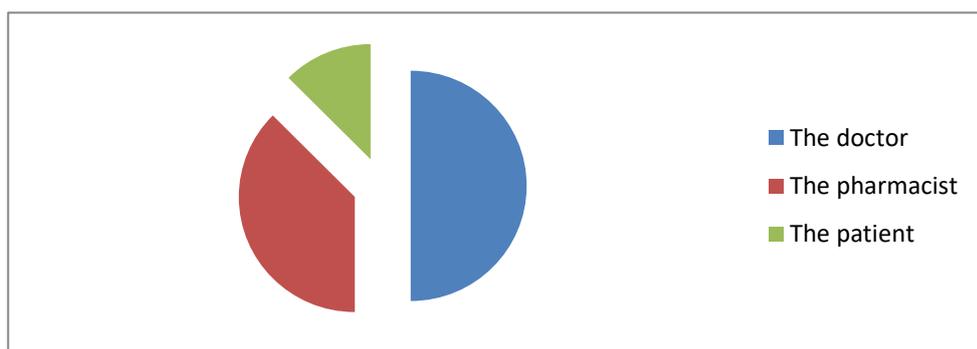


Figure (5) Use and Frequency of Social Deixis in Medical Leaflets

As indicated by the results of the analysis, discourse deictic expressions are uncommonly employed in medical leaflets. This is substantiated by the figure and table that have been provided. With a 3.942% utilization rate, discourse deixis is generally regarded as the less significant category. Broadly speaking, discourse expressions can be classified into two primary categories: those containing the pronoun "it" and those containing the preposition "in the section...". The use of these terms is approximated in percentages: the pronoun 'it' accounts for 45.454%, while 'in the section...' accounts for 54.545%. Their utilization functions to consult critical pieces of information, such as the instructions that have been previously alluded to. The following are instances where these expressions were utilized in medical leaflets to refer to whoever the doctor (10a), the pharmacist (10b) or the patient (10c):

11- a- "*your doctor will likely test your blood....*"

b- "consult your *pharmacist* before using this mediation"

c- "....it may occur rarely in *patients* with multiple risk factors."

5.5 Spatial Deixis: results and discussion

Spatial deictic expressions play a vital role in pragmatic linguistics as they enable the speaker to effectively communicate and indicate significant locations based on the specific context of the speech event. This is reinforced by the current study, which clearly demonstrates a significant and extensive use of this specific form of deixis. They are used 30 times, or 1.075%, as shown in Table 1 and Figure 1 on page // //. The limited utilization of this particular form of deixis suggests its minimal significance in the composition of medical brochures. The deictic spatial expressions that are thought to be highly significant are 'home and pharmacy'. Some examples of spatial deixis is the following which refer to the location of receiving the mediation:

12- "you will receive this injection in a *clinic* or *hospital setting*"

Conclusions

The research comes at its findings after analyzing the data presented above. The study highlights the significance of using deictic expressions into medical leaflets, as these expressions help to clarify pragmatic interpretations that are situationally dependent. The patient's case, symptoms, and the timing of their assessment and therapy are all directly impacted by how these deictic statements are understood. According to the study, the relative importance of these expressions varies depending on the current context of situation. Because mentioning the patient or their symptoms is so important, personal deictic expressions have been employed in a substantial and high percentage, as indicated in Table (1). Similarly, as shown in Table (1), temporal expressions are among the most essential and commonly employed forms to emphasize the significance of timing for health exams and dose administration. Some types, like discourse expressions, had medium percentages, while others, like spatial and social expressions, had low percentages; these are shown in Table (1). Hence, these conclusions prove the hypotheses of the study.

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