### INSTITUTIONAL MEDICAL DISCOURSE: INTONATION MEANS

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The paper is devoted to the study of depicting doctor-speaker oral portrait. The speech of a doctor is referred to as a medical discourse realized in a situation of examining the patient. Medical discourse is singled out as a type of institutional discourse where doctor's interaction in the process of doctor-patient communication is implied and signified as one fulfilling the goal of help and pain-relief. This type of discourse is classified as a discrete medical discourse implying an interruption in the process of communication caused by specific situations of cooperation with the patient. The structure of communication is considered to consist of two parts including the definition of the problem, its symptoms and the reason of its nascency, and an attempt to recommend the best solution. Intonation stands out as a significant means of changing the context based on a wide variability of components of intonation that make it possible to single out the key features of the medical vocabulary and grammatical structure of oral medical discourse. The analysis of the research data has brought to the inference two parts of the doctor-patient dialogue: examination-questionary of a patient and general conclusion. The examination-questionary part is characterized with the use of various types of interrogative constructions, namely general questions that create the main link of doctor-patient communication; in its turn, the general conclusion of the survey is formed out of statements mostly complex sentences. The article is based upon the auditory analysis during which basic intonation parameters have been thoroughly investigated. The medical discourse is fulfilled in a friendly situation, the intention of which is to provide assistance; the voice of the speaker-doctor is quiet; the tempo is not quick; the tone range is medium; the scale is mostly Descending Stepping one although the part of survey can be realized with the High scale or Broken scales as well. The choice of the speaker on the part of the Descending scale is intended to keep the reserved official style of an institutional discourse each word of which should be taken as utmost importance and respect.

# ІНСТИТУЦІОНАЛЬНИЙ МЕДИЧНИЙ ДИСКУРС: ЗАСОБИ ІНТОНАЦІЇ

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Ключові слова: мовлення лікаря, мелодія, шкала, термінальний тон, аудиторський аналіз, перцептивний аналіз, діапазон, інтонаційні засоби, комунікативні типи речень.

Стаття присвячена вивченню усного портрета лікаря-мовця. Мовлення лікаря належить до медичного дискурсу, який реалізується під час огляду пацієнта. Під медичним дискурсом розуміємо тип інституційного дискурсу, в якому комунікативна взаємодія лікаря в процесі комунікації лікар-пацієнт реалізує мету допомогти та знеболити. Такий тип дискурсу класифікуємо як дискретний медичний дискурс, що передбачає перерву мовлення доктора-мовця, викликану певними ситуаціями співпраці з пацієнтом, коли останній відповідає на питання. У ході перцептивного аналізу досліджено структуру дискурсу, яка складається з двох частин, включаючи визначення проблеми, її симптоми та причину появи, а також рекомендацію щодо подальшої дії задля полегшення стану пацієнта-мовця. Інтонація – значущий засіб зміни контексту, яка базується на широкій варіативності компонентів інтонації, що дає змогу виокремити ключові ознаки медичної лексики та граматичної будови усного медичного дискурсу. Аналіз даних дослідження дозволив зробити висновок щодо структури дискурсу, яка має дві частини діалогу лікар-пацієнт: огляд-опитування пацієнта та загальний висновок. Опитувальна частина, яка складається з різноманітних питальних конструкцій, основну ланку яких займають загальні питання у спілкуванні лікаря з пацієнтом; своєю чергою загальний висновок опитування формується переважно зі складних (складно-підрядних та складно-сурядних) речень. Аудиторський аналіз становить основу дослідження медичного дискурсу, під час якого детально досліджено головні інтонаційні параметри. Медичний дискурс здійснюється в дружній ситуації, метою якої  $\varepsilon$  надання допомоги; голос диктора-лікаря тихий; темп середній; діапазон тону середній; шкала низхідна, переважно ступінчаста, з частковою вимовою високої або ламаної шкали. Формування дискурсу низхідною шкалою придає стриманий офіційний стиль спілкування інституційному дискурсу, де кожне слово лікаря повинно мати вагу та сприйматися з повагою.

Formation of the problem. Various spheres of human activity have created a large variety of relationships depending on the sphere of communication. At this stage of the development of linguistics and communication of relationships, there is a spread of each institutional discourse due to the increase in the services provided. An integral branch

has always been and remains the field of care, where medicine is referred to and identified as medical discourse

Linguists interpret medical discourse in a different way according to the aim of the research. There is a general understanding it to be signified as a capacious concept, but the assistance provided at the time of the addressee's initial request is the main one for relieving pain symptoms. What is more, it requires good communication skills on the part of the interlocutor-doctor. Words and their organization is quite important, but the fact how you present the illness, or diagnosis, or treatment can cause different emotions and psycological states. Under these circumstances, we imply the imfluence of intonation to be immense. It is the intonation of the opinion and assistance that provides a combination of knowledge and skills in a particular situation of communication. The structure of intonation hasn't been thoroughy studied yet.

The purpose and objectives of the article. Oral communication in any language makes discourse impossible without intonation, which implies two components that complement each other. These components include communicative and pragmatic components, which is enhanced by the emotional and expressive meaning of the utterance.

The structure of intonation and its means of creating oral medical discourse are relevant to the topic of the study. The main task is to investigate melody and its influence on the basis of its components and their function while depicting the portrait of saver-helper and professional.

**Subject and object of research.** The object of the study is the oral texts of modern English-speaking doctors which form the basis of oral medical discourse: the acquaintanceship and the inference.

The subject of the research is intonation means used in creating medical discourse where a dialogic unity is considered to be of great importance.

The material of this study is two video recordings of oral English medical discourse taken from the Internet. The discourse refers to American variant of English, it was transcribed and recorded in A 4 format. The data of the article is the part of introduction-examining and systematic questioning of the patient by the doctor which lasts 780 seconds.

The fulfillment of the goal is coherent to the methods to provide the edequate interpretation of the results achieved. Thus, the main method based upon is descriptive method. Systematic approach to the components of oral medical discourse form a holistic analysis being part of integral method. Scientific observation associated with perceptual analysis are to determine intonational features of the perception of the objects under study. The method

of contextual analysis allows to study the data of the analyzed spoken discourse. Structural method has been implied while the relation of linguistic elements within medical discourse. The method of component analysis helps to split the text into its constituent components that are intonation-groups. For thorough description of intonation features of the addressees' speech the method of linguistic description has been provided.

Results and discussion. Intonation refers to a complex linguistic continuum formed by a number of components that play a specific function in the creation of discourse. Linguist O.O. Selivanova understands intonation as "a set of supra-segmental indicators of the speech stream: stress, melody and tone, rhythm, intensity, tempo, timbre and pause" [Selivanova, 2010, p. 212]. The scientist claims the components of intonation are in unity with the sound level of oral discourse. They perform certain functions, such as the exchange of information, which helps to accelerate it; have the means to create an impact on the recipient and indicate the communication strategy.

According to researchers, among whom we can single out E.M. Andrievska, thanks to the results of the study of speech intonation, it is the means of intonation that accumulate and transmit "intellectual information of the statement" [Andrievska, 2001]. Scholar I.V. Charikova argues that intonation conveys the social characteristics of the speaker [Charikova, 2006, p. 68].

The study of intonation means is a multilevel approach that includes a number of procedures that allow a researcher to assert the evidence of certain features inherent in the subject of investigation: the auditory analysis.

The main stage of this complex process is the perceptual analysis of all the intonation means. Thus, after a repeated listening of the material (it was a three-time listening) the auditors that are specialists in this field of knowledge single out definite intonation means which are considered to have the utmost importance in the oral discourse creation: the survey and the general conclusion. The results of the observations are reflected in Table 1.

According to the audit analysis of intonation means used in the creation of oral medical discourse (Table 1), melody and its parameters should be noted to play a significant role (57% of all cases), as they

Table 1 The results of auditors' observations of intonation devices in oral English medical discourse, in %

The part of the discourse	Melody	Loudness	Тетро	Rhythm	Pauses	Timbre
the survey	63	0	22	0	15	0
the general conclusion	51	0	20	0	30	0
on the average	57	0	21	0	22	0

make up a prevailing part of the answers. Thus, pitch, range, variability of terminal tones and scales create a separate discourse called "medical discourse".

Tempo and pauses have been highlighted by the auditors in a significant number (21% and 22%, respectively) fulfilling the function of emphasis in the formation of oral image of a doctor.

In connection to the results achieved, the next step in the study of the doctor's oral portrait was the characteristic peculiarities of melody.

Oral discourse of any kind is formed with melody components. The minimum element of the text is an intonation-group, which components have become the object of the research, their structure and variability of scales (Descending, Ascending, Level).

The variety of scales was reduced due to the fact that the auditors insisted on a limited amount of variation. Therefore, only three types of scales were recorded in the medical discourse: in the survey and the general conclusion (Table 2).

As to the survey results (Table 2) the main scale responsible for a creation of doctor's oral communication is the descending scale helping in reproducing a full range of information necessary to make a diagnosis. This observation is typical to both parts of medical discourse (in the survey there have

been registered 91.3%, in the general conclusion it implies all the samples of analysis 100%). Relying upon this fact, the following step of our investigation was the study of the varieties of the Descending Scale, namely: Stepping scale, High scale or Broken scale in different communicative types of sentences both in the survey (Table 3) and in the general conclusion (Table 4).

According to the answers of the auditors (Table 3), the descending scale is a significant melody device of medical discourse creation, although the frequently pronounced scale is the Stepping scale, which is a typical general feature characteristic of all mentioned communicative types of sentences (they comprise 54.3% of all responses). For example:

Are they accompanied by any other symptoms? [4]. Table 3 indicates almost all communicative types of sentences are characterized with a homogeneous percentage distribution (41.4%–44.4%) with one exclusion. In order to convey the doctor's authority and confidence imperative sentences (100% of cases) are realized organizing the persuasive rhythmic structure contemporaneously:

Let us know if you are claustrophobic [4].

The High scale (used in 25.6% of cases) is observed in a significant quantity of sense-groups of a

Table 2

The results of auditors' identification of scales in oral English medical discourse, in %

	Type of a scale	Descending Scale	Ascending Scale	Level scale
	The survey	91.3	1.4	7.3
Γ	The general conclusion	100	0	0

Table 3
The results of auditors' identification of scales in oral English-language medical discourse during the survey, in %

Communicative types of sentences	Descen	ding Scale	Ascending Scale	Level Scale	
sentences	Stepping	High	Broken		
General question	41.4	27.6	10.3	6.9	13.8
Special question	44.4	40.0	0	0	15.6
Non-interrogative question	44.4	22.3	33.3	0	0
Statement	41.4	37.9	13.7	0	7
Command	100.0	0	0	0	0
On the average	54.3	25.6	11.5	1.4	7.2

Table 4
The results of the auditors' identification of scales in oral English medical discourse in the general conclusion, in %

Communicative type	Descending scale				
Communicative type	Stepping scale	High scale	Broken scale		
Long extended statement	40.0	36.0	24.0		
Compound	34.0	43.2	22.8		
Complex	44.4	33.3	22.3		
On the average	40.0	37.5	22.5		

medical discourse localizing its maximum frequency in special questions (40.0%) and statements (37.9%), highlighting a rather short duration of an intonation-group. To illustrate:

How can I assist you today? [4].

The broken scale being an invariant of the descending scale is distinguished only in a small number of cases (11.5%) of the survey, proving to be a distinctive means of non-interrogative question formation (being realized in 33.3% of cases).

Table 3 depicts not only the descending scale, but ascending and level scales as well. As to the Ascending scale it has been singled out only one type of sentences pronounced with it: general questions (marked as such in 6.9% of cases):

Do you have any drug allergies? [5].

Speaking about the level head (used in 7.2% in the survey of medical discourse) it to be differentiated as such mostly in *special and general questions* (15.6 and 13.8% respectively):

Would it be okay if I took some notes? [5].

The next phase of the research of the prenuclear part has been based on the study of the variability of melody in the general conclusion of a medical discourse (Table 4).

The auditors' responses to the melody in the general conclusion realized in table 4 indicate a significant function of melody in medical discourse formation. First and foremost, the discourse in the conclusion is expressed through reserved scales which add persuasion to the doctor's speech: the so called summary of a medical examination.

According to Table 4, the Descending Stepping scale has been differentiated by auditors in all communicative types of sentences, both simple and complex (it occupies 40% of cases in the general conclusion), with the majority of realizations in complex sentences (44.4%):

Based on your symptoms, I suspect these headaches might be migraines [4].

The indication of laconic information of short sense-groups expressed by the High scale is a typical feature of the final phase of medical discourse (represented in 37.5% of cases) and has the biggest frequency upon creation of complex sentences (43.2% of cases):

I will provide you with the list of instructions, and guidelines to follow before the appointment [4].

The results of the study have enabled us to single out the frequency of using the Broken scale in this part of discourse (22.5%) to be twice as high as in the survey part (11.5%) which aim is to emphasize keywords which have a positive effect on the patient's condition and reaction:

No surgical history, no really hospitalizations. The pain isn't really impacting your day-to-day living in daily life [5].

The maximum characteristics are localized in long extended statements (24%):

I recommend keeping a headache diary [4].

Thus, despite the fact that the general conclusion is represented only by the descending scale, the impact is more significant.

Conclusions and prospects for further development. According to the intonation parameters studied during the audit analysis, the following characteristics of oral English medical discourse have been differenciated:

- pitch, range, variability of terminal tones and scales, tempo changes and pausing are designed to shape the discourse under analysis;
- the descending scale is the basic scale of the doctor's oral communication;
- the most frequent scale of the Descending scale is the Stepping one which is a characteristic feature of all communicative types of sentences (54.3%) in the survey;
- in the general conclusion the discourse is conveyed by reserved scales that add weight to the words: Descending Stepping scale (the scale is common to all communicative types of sentences of simple/complex-compound sentences (40.0%), has its maximum realization in complex sentences (44.4%)); and the High scale ((37.5%) whose increased parameters are a sign of highlighting compound sentences (43.2%)).

The further investigation of the field of medical discourse is considered to be focused upon the study of terminal tones (low Fall, Low Rise, Fall-Rise, High Fall), the level of sense-group formation (high, medium, low) and the range of melody (wide, medium, narrow).

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