## RESEARCH OF ENGLISH AND UZBEK PHARMACEUTICAL TERMS IN THE COGNITIVE-SEMANTIC ASPECTS

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**Abstract:** The article describes the connection of pharmaceutical terms as the oldest concepts with the knowledge, experience, thinking, and perception of the speakers. It is noted that the cognitive-semantic approach to the research of pharmaceutical terms, especially the names of medicines in the English and Uzbek languages, the great importance in the analysis of the medical knowledge, skills, and abilities of native speakers, and in illuminating the level of thinking and perception. It is noted that pharmaceutical terms have been researched in the linguistic-philological aspect, the necessity and relevance of a monographic cognitive-semantic analysis.

It was mentioned that pharmaceutical terms in English are collected in dictionaries and corpora, encyclopedias of Uzbek medicine names are collected in historical and artistic sources, dictionaries, Uzbek language has wide possibilities in terms of pharmaceutical terms.

There are given proposals and recommendations for the study of English and Uzbek pharmaceutical terms.

**Keywords:** pharmacognosy, pharmacology, pharmacy, medicine names, medicinal substance, medicinal forms, medical field, medical term, own layer, mastered layer, encyclopedic resource, corpus, parallel corpus, thesaurus.

**Intriduction.** The peoples of the world live in different parts of the earth, in different socio-political environments. The worldview of human society is formed and is being improved in harmony with cultural relations, mental consciousness, features of space and time. These characteristics are considered an external factor and are expressed in the terminology of almost all fields.

Medical terms are one of the concepts that have been used since the early stages of human development, when consciousness, culture, and language were formed. Medical terms are widely used concepts in this science and indicate the level of development of the field. The basis of medical terminology is pharmaceutical terms.

Medicinal names have been around since ancient times and arose out of people's health needs. Attempts were made to find a cure for the disease, its manifestations, and symptoms in the early stages. Treatment measures and methods were sought after withdrawing from the social way of life, people's worldview, beliefs of that time. It is correct to say that the history of medicine begins with the first periods when attention was paid to the disease.

Concepts of pharmaceuticals were formed as a result of efforts made to eliminate disease. Medicinal names emerged and developed during the socio-cultural development of the English and Uzbek peoples. A system of pharmaceutical concepts was formed on the basis of people's pharmacocognitive knowledge, thinking, and perception level. The people's observations, experience, and knowledge about medicine are expressed in the names of medicines. Therefore, the cognitive-semantic analysis of pharmaceutical terms plays an important role in determining the development of the field, clarifying the relationship between the term and the language owner, and improving treatment measures.

Study of pharmaceutical terms. In world linguistics, pharmaceutical terms have been studied in various aspects. Pharmaceutical terms have been analyzed in studies on the terminological system, differences between terms and other lexical units, in studies on biological terms, and in studies of medical terms [5; 12; 18; 8; 9; 1].

We have divided the studies devoted directly to pharmaceutical terms into the following semantic groups:

1. Studies based on a specific source. A number of pharmaceutical studies have been conducted based on sources. For example, M.N. Chernyavsky studied the pharmaceutical terminology recorded in the writings of Hippocrates [19]. Sources are also referred to in A. Saidnomanov's research. The researcher focused on medical dictionaries in Uzbek language and their differences [13:32-34].

2. Studies within one language. Pharmaceutical terms are studied within one language. These studies were divided into two directions: synchronic and diachronic aspects. A. Kasimov conducted a research on pharmaceutical terms in the current Uzbek language [8]. Y. B. Neyfax studied pharmaceutical terminology in German in a synchronic aspect [10].

3. Studies in several languages. Research in this group includes research in a comparative and cross-sectional aspect. Pharmaceutical terms are studied in a cross-sectional aspect. Lexicographic, functional-semantic features of pharmaceutical terms in languages belonging to different systems have been studied [17]. This type of research is mainly carried out on the basis of comparing and contrasting two or three languages.

4. Methodological studies. A number of studies have been devoted to the teaching of pharmaceutical terms. M. Israilova studied pharmaceutical terms in the process of teaching Latin on the basis of clarifying the issues of improving the didactic foundations of the intellectual and cultural development of students of the medical higher education institution. The work focuses on the Latin language and medical terminology, the role of medicine names in intellectual and cultural development [6]. G. Yakhshiboeva created a study dedicated to modern methods of developing reading and writing skills in teaching pharmaceutical terms. In the study, the derivational system of pharmaceutical terms, affixal, morphemic-morphological, semantic, functional-semantic and syntactical methods of formation are highlighted. Issues related to the translation of terms, practical recommendations for reprints of dictionaries of pharmaceutical terms have been developed [7].

Research on pharmaceutical terms was mainly conducted in the linguistictheoretical and methodological aspects. Cognitive-semantic features of pharmaceutical terms are hardly paid attention to in these works. Based on the topic

of research, it was not necessary to set such a goal. Cognitive-semantic properties of medicine names are not defined as research subjects in the monographic plan.

**Cognitive-semantic features of pharmaceutical terms.** Concepts of pharmaceuticals emerged as the products of treatment theories, methods, and tools of each nation. In particular, pharmaceutical terms in English and Uzbek languages show development characteristics based on extralinguistic and intralinguistic factors. Pharmaceutical terms in the English and Uzbek languages reflect the common and different signs of the people's outlook, national-cultural relations, as well as the level of development of the medical field in these two cultures.

Pharmaceutical terms, first of all, can be divided into two groups: natural medicinal substances; synthetic medicines. The mental thinking of the people is manifested in a relatively clear form in the name of natural medicinal substances. Generalized terms naming medicinal products, some medicinal names have similar signs in English and Uzbek languages: for example, *herbal products/tabiy mahsulotlar natural products*. Herbal medicines are the names of natural medicines in English. Herbal medicines/products are the names of herbal medicines and products.

The English and Uzbek people's general assessment of the medicine is expressed in the terms *Arsenic / margimush*. Arsenic is a Greek word meaning "sharp". A chemical element belonging to group V of Mendeleev's periodic system, number 33, margium or arsenic, a sharp metalloid. Margimush means "sharp enough to kill even a mouse" based on presupposition. Margimush is a Persian-Tajik word, "mouse death; "mouse killer". 1. Dark gray crystal, sometimes amorphous brittle, hard metal. 2. Preparation made from this substance (used in medicine and technology). The Russian name of *margimush*, mishyak, also corresponds to the meaning of the Persian-Tajik base. In addition to the denotation, the name of the medicine also expresses the assessment of the strength and potency of the medicine by English and Uzbek speakers.

Some medicine names in English are named after the function they perform. For example, an expectorant is an expectorant, an anti-cold, the term literally means "out of the chest".

The medicine churnï surgi in the Uzbek language is named according to its functional-semantic feature. But this medicine name is rarely used now. Actively used in classical sources.

*Clove* / pepper bead (clove) *qalampirmunchoq* (гвоздика). *Clove* is a tree in Indonesia, derived from the word clavus meaning "clove, nail". While the English named it based on the sharp spikes of the medicinal plant, the Uzbeks named it according to the shape, taste (pepper) and state of drying and stringing (bead) the fruit of the medicinal plant.

Cognitive-semantic analysis has its own methods in tissue science. In a metaphorical sense, it reflects the mental thinking and analysis and assessment of linguistic consciousness of the speakers. L. Lakoff and M. According to Johnson's conceptual models, metaphorical transfer is a means of cognitive operation that provides a transition from one conceptual field to another. It involves two cognitive

domains - the source domain and the target domain. The conceptual metaphor of pharmaceutical terms arises by mapping the source space to the target space:

The difference between English and Uzbek languages is also observed in medicinal plant names. Migration events play an important role in the emergence of medicinal plant names. In the phenomena of migration and assimilation, the English and Uzbek people have a different outlook and values. For example, bistort /serpentine toron. Bistort means "twice twisted", so named because the root of the plant has a twisted shape. In the Uzbek language, a medicinal plant is represented by a similar zoonym.

The name of medicinal herbs is also related to folk thinking. Fennel flower is the English name of black sedana, which literally means "straw flower". In the English culture, the smallness, beauty, and delicacy of the flower of a medicinal plant were taken into account, while in Uzbek, the main focus was on the appearance and color of the flower.

Horse-tail. Horse-tail means "like a horse's tail". The English people named the plant based on its resemblance to an animal organ. The Uzbek people named the plant based on its many-jointed appearance. The cognitive scheme of the term in English is as follows:

English HORSE belongs to the cognitive field of the concept "animal". The animal cognitive domain as the source domain is mapped to the plant domain as the target domain. Based on the compatibility, horse-tail has its place in the target area of the "medical cannabis" concept.

In modern English and Uzbek medicine names, there is a large amount of assimilation. In English, Greek, Greek, and Latin words are the basis of pharmaceutical terms, while in Uzbek, in addition to Greek, Greek, and Latin words, there are many Arabic, Persian-Tajik words. Pharmaceutical terms of their class are actively observed in ancient, historical sources.

Pharmaceutical terms in English and Uzbek are compiled from various sources. English medicine names are reflected in dictionaries and national corpora of the English language. The names of medicines in Uzbek language are collected in encyclopedic works of scientists, historical and artistic sources, historical and modern dictionaries. The works created by encyclopedic scientists and the names of medicines in historical and artistic monuments are important sources that summarize people's life experience, medical outlook, and knowledge. The works of encyclopedic scientists are noteworthy for their collection of pharmaceutical concepts related not only to the Turkic languages or the Uzbek language, but also to the ancient developed languages of the world.

Basic sources of pharmaceutical terms. The works of Abu Ali Ibn Sina "Canon of medicine" [2], Abu Bakr Ar-Razi [3] are cited as ancient sources for the explanation of medical concepts. In particular, Ibn Sina's contribution to pharmacology is extremely important. The medicines he proposed have been widely used for centuries, and many of them have not lost their value even now [14:23].

The works of encyclopedic scientists on medicine contain important information about types of diseases, symptoms, treatment process, types, and means.

"Canon of medicine" is the primary source for pharmaceutical terms. It contains the names of medicines that were actively used in the 9th-10th centuries: šalïsa (shaliso) - a medicine aimed at improving the general condition [2:29]; taryak (taryak) is a medicine with a complex composition against poisoning [2:234]. Mitridus is a medicine with a complex composition, named after its creator [2:235].

In 1048, Aburayhan Beruni wrote the work "Saydana" dedicated to the description of medicinal plants, animals, and minerals. "Saydana" contains the names of medicinal substances in several languages. The linguistic value of this work lies in the fact that several words expressing the same concept, variants of the name of the substance in the vernacular, dialects are presented [11:15].

In order to write the work "Saydana", the author collected medicinal substances based on the information he saw and recorded in different regions of the world since his youth. He also collected the opinions of scientists before him about medicinal substances as a basis. Summarized the names of medicinal substances found in the works of famous scientists of the world. He notes that he recorded some medicines directly from the mouths of individuals [4:17].

"Saydana" is a work consisting of five chapters, each medicine name is explained in a separate paragraph.

Chapter 1 explains "Saydana" and its essence. Characteristics of "Saydana" equivalent to the current field of pharmacognosy are described.

In Chapter 2, medicine names are divided into simple and complex. The word Akokhir was used by Beruni for a collection of simple medicines. The chapter provides information on Indian healing methods, in particular the method of treating with poison.

Chapter 3 contains important notes on medicine interchangeability. In this chapter, Beruni emphasizes the achievement of the Greeks in medicine. Among the peoples of the East, he notes the activity of Indians in the field of medicine. Here he talks about cultural relations with Indians.

In Chapter 4, Beruni comments on the Persian and Arabic languages. He notes the Persian language as the language of art, and the Arabic language as science. He sees the possibility of expression of the Arabic language in the development of foreign studies. In turn, he notes the complexity of the Arabic language, which causes problems in the representation of medicine names in other languages.

Chapter 5 contains comments on the Greek names of plants. The sources used in the writing of Saydana are mentioned [4:17].

At the end of the work, there is an explanation of the medicine names in "Saydana" in alphabetical order. For example, medicines in the form of oil are called powder. The scientist noted that there are many types of medicinal oils, each of them has a special feature. He wrote that the balsam oil is hot and dry to the second degree. Kleshevin noted that oil of the second degree of heat and the first degree of dryness, has a solvent power. Galen is quoted as saying that turnip-seed oil and kleshevin oil are of equal potency, except that turnip-seed oil is hotter than kleshevin oil. In terms of benefits, no oil comes close to rapeseed oil. Therefore, in cases where it is difficult to find olive oil, they use turnip seed oil [4:463].

Medicine names represent the main semantic group among medical terms in classic historical-artistic texts and dictionaries.

OTD (Old Turkic Dictionary) contains the following medicine names: *ot* - "medicine" (OTD, 373), *urayun* - "the name of one of the Indian medicines, boiling juice" (OTD, 614), khasni "a medicine brought from India", *ötrüm* - "*laxative*" (OTD,I,131), irwi "Indian medicine used in treatment (DLT,I,148), *mithridus* is the name of a medicinal mixture (DTS, 338), *mazip* is a "medicinal mixture" (OTD, 339); *darman* - "medicine" (OTD, 159), *tirjaq* - "medicine against animal and insect poison" (OTD, 563).

The following terms are mentioned in "Kutadgu bilig": *ögit* "medicine prepared by adding several different ingredients to saffron", *guvariš, ma'žun* represent the names of medicines prepared from medicinal herbs; *güvariš (guvarish)* - digestive medicine; *teraŋbin* "releasing, cleansing medicine". *Teräŋbin* (tarangbin) - the juice that appears on the leaf, used as a surging medicine. *Sikanjabin* means "vinegar jam" [16:17-78].

Names of medicines and medicinal herbs mentioned in "Boburnoma": *basit* - "heating medicine" (BAL, 15); mushil - "*laxative medicine*" (BAL, 88), impossible a. "relieving, rubbing, washing, cleansing medicine" (DNW, 424), *adviya* - "treatments, medicines" (BAL, 6), *ябруҳус-санам* "caring" "*мандрагора*" (TRD, 228). kulan tail, blue shibok "herb that makes creatures numb when used together": pepper "a tropical plant and its round fruit, seed used as a spice" (ULED, I, 482); "*black pepper*" (TRD, 241), bukhor "steam", "evaporation" (TRD, 86), *aqokhir* "healing plant root" (BAL,12): *доруйи кор, марҳам* "ointment"; "medicinal mixture, "medicinal oil" (TRS, 217), *mercury* f. "mixture consumed as medicine"; rtut (TRD, 358), jullob "juice prepared by mixing rose, flower water (juice) with honey or sugar" (DNW, 235), *ma'jun* a. consumed as a sedative, "medicinal mixture"; graduate "*лекарственная смесь*" (OTD, 339); *gili maktum; Tariqi Faruq* is an opposite poison [15:145].

The appearance of pharmaceutical terms in historical sources and dictionaries has been analyzed in scientific studies.

#### **Conclusions.**

1. Pharmacognosy of English and Uzbek languages has its own path of development, stages of historical development, historical and modern sources. Pharmaceutical terms in both languages serve to provide information in the current terminological system as the main conceptual and terminological apparatus of the field. At the same time, medicine names are also a source of linguistic and cognitive information that informs about the medical outlook, knowledge, thinking, skills and qualifications of the English and Uzbek peoples. Universal and unique signs of pharmaceutical terms in English and Uzbek languages, linguocognitive features, aspects related to the thinking and perception of the language owner are systematically determined in monographic studies.

2. Researches in the field of pharmaceuticals are mainly researches carried out in the linguistic aspect, aimed at structural-semantic, grammatical-morphological, functional description of medicine names. Analyzing the properties of medicine names related to the thinking and evaluation of the native speakers is one of the urgent tasks in the research of English and Uzbek pharmaceutical terms. Cognitivesemantic analysis of English-Uzbek pharmaceutical terms plays an important role in distinguishing common and different signs based on the medical knowledge, thinking, observations and experiences of the speakers. In addition, it serves to provide additional knowledge about disease treatment methods, tools, and remedies.

3. English pharmaceutical terms are collected in historical and modern dictionaries. National corpora of the English language, the WorNet thesaurus, is the main database of pharmaceutical terms. In this respect, English has favorable opportunities for pharmaceutical research.

4. Names of medicines in the Uzbek language are reflected in the works of scientists. historical-artistic sources. encyclopedic in in historical-modern dictionaries, and contain people's views on pharmacognosy. The works of encyclopedic scientists on medicine and pharmacognosy are important sources of information about pharmaceutical terms of the world scale. The oldest treatment methods, medicine names, instructions and opinions of famous doctors are expressed in these works. These sources are of particular value as they provide alternative versions of medicine names in several languages. The presentation of the form of expression of medicine names in local dialects, the compilation of dialect words based on the names of medicines also shows that the linguistic value of these works is unmatched. At the same time, it ensures the quantity of pharmaceutical terms in the Uzbek language.

We recommend the following regarding pharmaceutical terms in English and Uzbek:

1. When analyzing the pharmaceutical terms in English and Uzbek languages from a cognitive-semantic aspect, determining the statistics of existing medicine names in English, determining the ratio of native and assimilated layer words, analyzing the relationship to medicine names in Uzbek language allows to systematize medicine names in both languages.

2. Compilation of medicine names from encyclopedic, historical-artistic sources of the Uzbek language, creating a database, creating a national corpus, a parallel corpus, and linguistic support of thesauruses is one of the important steps in increasing the prestige and status of the Uzbek language.

3. Systematization of medicine names in encyclopedic sources, determination of names in English and international pharmaceutical system, clarification and analysis of etymological features are of practical importance in explaining the basics of pharmaceuticals.

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## **Conditional abbreviations**

BAL - Nazarova Kh. Annotated dictionary of the works of Zahiriddin Muhammad Babur. - Tashkent, 1972. - 187 p.

OTD – Old Turkic Dictionary. – Л.,1969.

DNW - Dictionary of Navoi's works. Under the editorship of Porso Shamsiev.-Tashkent, 1972. -784 p.

TRD - Tajik-Russian dictionary. Pod edit. M. V. Rahimi and L. V. Uspenskoy - M.: Governmental edition foreign and national dictionary, 1954. – 789 p.

ULED - an explanatory dictionary of the Uzbek language. -Tashkent: State Scientific Publishing House of the National Encyclopedia of Uzbekistan, 2006. I -680 p.; II- 672 p.