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MEDICINAL PLANTS IN MEDIEVAL TREATISES: MEDICINAL PROPERTIES, APPLICATION, DESCRIPTION

Traditional medicine is understood as a set of therapeutic and hygienic measures practiced in local human populations. This knowledge is based on the experience of one or a number of generations of people and was transmitted orally and later in written works. Each period had its own healing art and it is clearly recorded in the written heritage of the healing healers of that period. Ancient medical treatises, written primarily on the basis of personal observations and borrowed materials, are sometimes difficult to understand due to significant differences in the concepts and terms of traditional and modern scientific medicine and require in-depth analysis. The analysis of medical treatises is a serious scientific task that requires the joint efforts of several specialists; doctors, botanists, ethnographers, linguists and pharmacy specialists.

The article presents a list of herbs that were often taken in Turkic folk medicine in ancient times and are still used today in the treatment of various ailments, as well as the main properties of these medicinal plants described in written works. The sources of research in the article are the medical treatises "Dastûr al-'ilāj" (early 16th century) and "Asrār al-Atibbā'" (anonymous), which discuss the features of the medical traditions of the Turkic peoples in the Middle Ages.

Key words: medieval treatise, "Dastûr al-'ilāj", "Asrār al-Atibbā'", medicinal herbs.

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Ортағасырлық трактаттардағы дәрілік өсімдіктер: емдік қасиеті, қолданылуы, сипаттамасы

Дәстүрлі медицина жергілікті халықтарда қолданылатын емдік және гигиеналық шаралар кешені ретінде түсініледі. Бұл білім адамдардың санғасырлық тәжірибелері негізде қалыптасып, кейінгі ұрпаққа ауызша және жазба мұраларда жетті. Әр кезеңнің өзіне тән емшілік өнері болды және ол сол кезеңнің шығармашыл емшілердің жазба мұраларда хатталып отырғаны анық. Бүгінге жеткен сол медициналық трактаттар жеке тәжірибесі, өзге шығармалардан алған білімі негізінде жазылғандықтан, дәстүрлі және қазіргі заманғы ғылыми медицинадағы ұғымдар мен терминдердегі елеулі айырмашылықтарына байланысты ол мұралардағы мәліметтерді кейде түсіну, талдау қиындық тудырады. Оларды терең талдау – дәрігерлердің, ботаниктердің, этнографтардың, лингвисттердің және фармация саласындағы мамандарының бірлескен күш-жігерін қажет ететін күрделі ғылыми мәселе.

Мақалада түркі халық емшілігінде көне замандардан бері әртүрлі ауруларды емдеуде пайдаланылып келе жатқан дәрілік өсімдіктерінің тізімі беріледі және сол өсімдіктердің жазба мұраларда сипатталған негізгі қасиеттері көрсетіледі. Мақаладағы зерттеуіміздің негізгі деректері ретінде түркі халықтарының емшілік дәстүрінің ерекшеліктерін баяндаған «Дастұр ал-'илāж» (XVI ғ. басы) және анонимді «Асрāр ал-атиббā'» ортағасырлық медициналық трактаттары алынды.

Түйін сөздер: ортағасырлық трактат, «Дастұр ал-'илāж», «Асрāр ал-атиббā'», емдік шөптер.

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Лекарственные растения в средневековых трактатах: лечебные свойства, применение, описание

Традиционная медицина понимается как комплекс лечебно-гигиенических мероприятий, практикуемых в местных популяциях. Эти знания основаны на опыте одного или ряда поколений людей и передавались устно, а затем и в письменных произведениях. В каждый период

целителей того периода. Древние медицинские трактаты, написанные преимущественно на основе личных наблюдений и заимствованных материалов, порой сложны для понимания из-за существенных различий в понятиях и терминах традиционной и современной научной медицины и требуют углубленного анализа. Анализ медицинских трактатов — серьезная научная задача, требующая совместных усилий нескольких специалистов (врачи, ботаники, этнографы, лингвисты, фармацевты).

В статье представлен перечень трав, которые в древности часто принимались в тюркской народной медицине и используются до сих пор при лечении различных недугов, а также основные свойства этих лекарственных растений, описанные в письменных трудах. Источниками исследования в статье являются средневековые медицинские трактаты «Дастур ал-'иладж» (начало XVI века) и «Асрар ал-Атибба» (анонимный), в которых описываются особенности врачебной традиции тюркских народов.

Ключевые слова: средневековый трактат, «Дастӯр ал-'илāдж», «Асрāр ал-атиббā'», лечебные травы.

Introduction

Traditional medicine is understood as a set of therapeutic and hygienic measures practiced in local human populations. This knowledge is based on the experience of one or a number of generations of people and was transmitted orally. Each more or less stable human population has its own set of therapeutic and prophylactic means and techniques. Almost every human civilization had its own established traditional medicine, which is to some extent reflected in written sources (the so-called medical treatises). These medical treatises are sometimes difficult to understand due to significant differences in concepts and terms in traditional and modern scientific medicine. The analysis of treatises is a serious scientific problem that requires the joint efforts of physicians, botanists, ethnographers, linguists and specialists in the field of pharmacy.

Traditional medicines are understood as medical systems that have developed in more or less large regions of the globe and are based on the experience of a significant number of generations of people.

Dr. Alaoui-Jamali claimed that "Plants have always been the primary choice for preventing and treating various diseases faced by human beings, and contain specific or broad-spectrum active compounds for almost any type of disease" (Sargin, 2021).

Scientific medicine consists of a number of sections: surgery, therapy, etc. Depending on the methods and means, treatment of patients, therapy is carried out by chemotherapy, physiotherapy, herbal medicine, zootherapy, etc.

In most empirical medicines (folk, religious, various traditional Chinese, Arabic, Indo-Tibetan) herbal medicine and partly animal therapy were the basis of any treatment, but in modern scientific medicine they occupy a clearly subordinate position, despite serious successes, achieved in the field of study of medicinal herbs and animals.

Substances that make up plants and animals are fundamentally more related to the human body in nature than synthetic drugs. Hence their significantly greater bioavailability, and relatively rare cases of individual intolerance and manifestations of a drug disease. This is a very important feature of phytotherapy and zootherapy (Mogilnaya, 2015).

Materials and methods

Medical literature holds a significant role within the historical context of Turkic languages and sciences. These texts have a broad appeal, encompassing fields like medicine, sociology, psychology, folklore, and botany in their content. They not only serve as valuable references for researchers in linguistics, shedding light on linguistic practices, but also hold a crucial place as sources within the history of Turkic medicine and scientific advancement. These texts serve as exemplars, underscoring the continuous utilization of Turkic as a scientific language throughout various historical epochs. Furthermore, these texts enable the observation of the trajectory of Turkic language development due to the foreign elements they incorporate.

According to the researches a lot of medical texts are well-known in Turkology, such as *Asrār al-Atibbā'* (17th), *Ṭıb Kitābı* (17th-18th), *Ṭıb-nāme-i Türki*, *Ṭıbb-ı Yūsufī*, *Ṭabībblik Kitābı*, *Risāle-i Ṭıbb* (19th), *İḥyā'ü'ṭ-Ṭıbb-ı Sübḥānī Te'līf-i Seyyid Sübḥānḳulı Bahādur ḫān*, *Menāfi'a'l-İnsān* (19th), *Risāle-i Şifā'ü'l-Ebdān* (1854), Ḳabā'idü'l-'Ilāc, *Ṭabībçılıḳ* (20th), ect.

In this study, we will undertake an investigation of two medical treatises, namely «Dastûr al-'ilāj» and «Asrār al-Atibbā'».

In the process of writing the article, linguistic and linguacultural analyses of the names of herbs mentioned in the texts were conducted by reading and transcribing the original Chagatai and Persian languages text. Additionally, general scientific methods such as collection, sorting, comparison, analysis and summarization were employed during the examination of linguistic units and terms.

The article discusses the classifications of medicinal plants found in the aforementioned works, elucidates their modes of utilization, and delineates the specific diseases for which they were employed during that historical period.

Results and discussion

«Dastûr al-'ilāj» and its medicinal plants

One of the full-fledged medical treatises written among the nomadic Turks at the beginning of the 16th century is «Dastûr al-'ilāj» ("Medicinal tradition") (al-Khurāsānī, 1526). According to the manuscript versions, «Dastûr al-'ilāj» was written in 933 A.H., i.e. in 1526-1527, and the author of the work was Sultan Ali al-Khurāsānī, known by the nickname «Tabib al-Khurāsānī» («The Doctor of Khorasan»). We have very little information about the exact year of the author's birth, when and where he died, his activities, and his family name. Only Khoja Hasan Nisāri writes in his work «Muzakkir al-ahbāb» («Remembrance of the Beloved») that Sultan 'Ali al-Khurāsānī studied medicine from Maulana Hakim Shahrisiābzī. According to the information in the text of the work, he was the physician of the Sultan Abu Mansur Kushkinshi Khan (colloquially known as Kushim, 1432-1530) and his son Abu Sayyid Khan (1533), and wrote the work in Samarkand under their authority. Having served as a doctor in the palace for more than twenty years, Sultan Ali al-Khurāsānī was suggested to write a book about the information he had collected from various books and their long-term healing experience by Kushkinshi Khan and his son. The author accepted the khan's offer and compiled this work in 1526-1527. These details are shown in the introduction of the work (Shadkam, 2021: 104).

In addition to the use of various domestic animals (Shadkam, 2022), the manuscript «Dastûr al-'ilāj» mentions the use of the properties of various medicinal herbs. In our research we endeavor to compile the list of some medical plants (fruits, vegetables and herbs). Approximately 130 medicinal herbs have been identified within the study. The tabulated data will delineate specific herbs, accompanied by original illustrations, elucidating their applications and therapeutic properties in the treatment of various diseases (Table 1).

Table 1 – The name of medical plants, their treatment and methods used in the the treatise «Dastûr al-'ilāj»

No.	The name of the plant	Examples	Use of treatment	Methods used
1	*Adırıs̲man (Peganum harmala)* (Kairanbayeva, 2023)	*eger bedbuylıqdın tiş ağırsa adırıs̲man uruġını ve ṣafranı soqup tişniŋ tübige salsa ağrıqı ḫoş bolur* (55a/1-3)	sore throat (8a/9); cold in the neck or abdomen (23b/3); teeth whitening (16b/7); leprous (43a/5); toothache (55a/2); internal diseases(68b/4)	Rub the body; applying powder; boil and steam; drinking with milk, etc.
2	*aḳ piyaz (shallot)*	*ėger kim ersenіŋ göksi ġıcıldap yüre almasa ḳara ḳoy ḳuyruġını aḳ piyaz aḳ çamġur birle ḥal ḳılıp ḳaynatıp üç gün naştada yese ol zahmet def' bolur* (10a/7-9)	chest pain (10a/8)	boil and consum internally on an empty stomach, etc.
3	*aḳ çamġur (Raphanus)*			
4	*Almurt* (pear seed)	*Herkim erse ṣedefni almurt uruġını adrısman uruġını qoşup un qılıp tişige sürtse besiyar aq bolġay ağzı ḫoşbuy bolġay* (16b/5-8)	teeth whitening (16b/5); black eyes, ear pain, blurred vision, wind in the head (43b/6-44a/2); cough (57a/3).	grind and apply; boil and apply to the head; boil and drink when hot, etc.
5	*Anar* (pomegranate`s juice, seed, bark)	*eger hasbe balġamdın bolsa anar pustini köknar ruhnı qara qoynıŋ quyrıġnı atala qılıp çafılsa def' bolur* (18a/3-5)	measles due to phlegm *(balġam–* 18a/3); cleaning yellow bile (*ṣafrā* – 32b/3); freckles (71b/5); for health (73a/5)	Boil the bark and apply it; soak the seeds in water overnight and drink; rub with the juice, etc.

Continuation of the table

No.	The name of the plant	Examples	Use of treatment	Methods used
6	*Arfa* (barley`s flour, water,)	*Az ĥalġa ham arfa unını mayda tasqap açıġ ayranġa çalıp bėrse derĥal turġay* (19b/7-9)	Weakness (azḥal– 19b/7); cleaning black bile, yellow bile (33a/3-9); *qarakezik* (40a/8); headache (44a/9); severe cough (58a/4); liver cold (60a/6); water retention (zaqqı – 60b/7)	grind raw barley flour; drink barley water; boil barley water, etc.
7	*Artuç urugı* (juniper seed)	*eger safradın bolsa artuç urugını kuçlanı çuhla urugnı aşala urugını èçkü yagı birle atala qılıp çafılsa def' bolur* (18a/5-7)	measles (*ḥeşbe* – 18a/6); heat in the liver (63b/3)	Mix it with goat's fat and apply it on the hands; soak it in vinegar before drinking, etc.
8	*aşala urugı* (Ferula seed)			
9	*Badreŋ* (cucumber seeds)	*badreŋ urugnı penc küreni nuquġ qılıp bėrse hemesini yoq qılur hem şafranı hem balġamnı hem savdanı hem yel hemmesini qılġay* (20b/2-3)	phlegm *(balġam*–6a/4); pain in the navel during labor (20b/2); bladder is full and can't lie (21a/1)	Cook it with other ingredients; mash the pulp in water; boil it with other components, allowing it to sweat, etc.
10	*Bādyan* (seed of star anise)	*ikirni olcaŋnı arfa bādyan suyı birle qaynatıp bėrse def' bolur* (58a/4-5)	cough (58a/4); cold (8a/9); belly is enlarged and swollen (7a/5); phlegm (*balġam*–59a/5); stomach ache (62a/3); lack of appetite (67b/1)	Boil it in water and consume; mix it with water and apply it to the body, etc.
11	*Buyan* (leguminous crop)	*eger kişi qotur bolsa ya oġlan uşaq çala bolsa buyanıŋ urugunı bir küzecıq alıp kuzeniŋ ağzı lıq çıġ çenk tıqmaq kėrek* (15b/1-3)	if there is scabies or if a boy is born prematurely (15b/2); pain in back/ legs (21a/5); headache (44a/9)	Extract oil by placing it in a jar, burying it in the ground, and burning it; boil in a pot and steam, etc.
12	*Benefşe* (violet plant*)*	*eger kişini közi şişse benefşeni gölab birle yoğurup qabaqlarıġa taŋsa şişi kiter* (49b/1-3)	nerve pain (6b/8-9); yellow liquid in mouth (7a/2); eye swelling (49b/2); insomnia/ black bile (55b/7)	mixing it with other flowers and consum; extract oil and apply it to the head, etc.
13	*Qurtqa taş* (alum stone)	*andın qurtqa taşını 'aselde 'aselde bolmasa 'unşulda izip bäri a'ġžāsıġa sürtkey andın qırq bir süküt cabıqıda nāṣūr du'āsını oqup çaçsun şifā tapqay (8a/4-6)*	if the stomach is parched; catching a dry wind (17b/5)	if it is good until it reaches the whole body, the cold will go away; Beat it, mix it with goat's fat, and apply it to the stomach; use it with honey, if there is no honey, onion should be mashed and rubbed all over the body, etc.

According to the Table 1, we can see that only on 13 names of fruits, vegetables herbs are mentioned in the medical treatise "Dastûr al-'ilāj"; and methods highlight the diversity in approaches used in the treatments, ranging from topical applications (drinking when hot or with milk or on an empty stomach, soaking seeds in water overnight) to various oral consumption methods and specific preparation techniques (boiling, steaming, sweating, grinding, extracting oil by placing it in a jar, burying it in the ground, and burning it, etc.). The treatise seems to encompass a broad range of plant-based remedies, each employing distinct methods tailored to address specific medical conditions. The table outlines various plant-based treatments for a diverse range of illnesses in the treatise "Dastûr al-'ilāj" such as sore throat, teeth whitening, cough; for measles, bile cleaning, liver cold; stomach ache and catching a dry wind. Plants not included in Table 1 were utilized for treating a variety of ailments, including but not limited to cough, cold, flu, eye diseases, scabies, premature birth, biliary diseases, lung conditions, sputum issues, flatulence, and dental problems.

«Asrār al-Atibbā'» and its medicinal plants

Joseph Toulousen (Joseph-Desire Tholozan, 1820–1897), a French military doctor, epidemiologist-scientist, corresponding member of the French Academy of Sciences, academician of the National Academy of Medicine, was the first who paid attention to the medical heritage of "Asrār al-Atibbā'" ("Secret of Healers") and present it to the scientific community. In 1858, the French Ministry of Foreign Affairs appointed Toulousan, a famous physician of the first rank, as physician to the Shah of Persia, Nasr al-Din Shah (1831–1896). In Iran, he was known as *Tabīb Tūlūzān Iūnānī*. This medical treatise was initially published in 1860 under the title "Asrār al-Atibbā' ī mudjarrabāt īlat Chaġatāiī" ("Secrets of the Healers or Experiences in Healing in Chagatai Regions") and subsequently reissued in 1962 (Shadkam, 2021: 100).

The Persian version of the 168-page treatise «Asrār al-Atibbā'» consists of an introduction and a main part (Tuyakbayev, 2023). In the introduction, the translator gives a brief description of the book and himself. In this introduction, the author writes that he received the version in Chagatai from Prince Muhammad Azim Tore, who traveled to Mecca in 911/1506 in the city of Mumbai. Subsequent to this preliminary section, the discourse delves into matters of maladies and their corresponding therapeutic approaches. For instance, the primary segment focuses on gynecology, encompassing themes of maternity, parturition, while the ensuing section expounds upon the healing practices attributed to the pilgrim Ahmad of Zharkent. Following the exploration of gynecological disorders and their remedial strategies, the narrative extends to encompass diverse subjects including health preservation, asthmatic conditions, corporeal augmentation, cephalalgia, ocular afflictions, alopecia, piliferous revitalization, abdominal distress, alcohol dependency, pulmonary infirmities, pediatric ailments, canine-inflicted injuries, epilepsy, fractures, and articular afflictions, each accompanied by their respective therapeutic methodologies. The difference of this book comparing to other medieval medical treatises is that the disease and treatment methods are not given in a specific order.

The manuscript «Asrār al-Atibbā'» meticulously categorizes its content into 133 subthemes, each addressing specific diseases and corresponding treatment methods. These encompass a wide range of ailments, including headaches, sunburn, magnet treatment, cold-related headaches, diarrhea, colic, pregnant women's stomachaches, meat bite treatment, cancer treatment, stomach-related issues, hemorrhoids, lung diseases, eye-related conditions, palpitations, weakness in the unborn child, and remedies for the teething troubles of infants. Furthermore, the manuscript delves into the therapeutic properties of various medicinal plants. Among them, notable mentions include saffron, sesame seeds, flaxseed, qaranfil, and others. Here are some of the primary plants highlighted within the manuscript:

Teretizek is a kind of plant which was mentioned several times in the «Asrār al-Atibbā'». In the "Fertility and Pregnancy Planning" section of the manuscript, it is noted that the substance is employed for fortifying male reproductive health (Ṭūlūzān, 1860):

کرادوپلیون این کبارش یعنی آنها که کتخدا باشند و به سبب عارضه امراض یا به سبب پیری مباشرت به منکوحه خود بوجه احسن نمی‌توانند ادا کرد علاج او تخم هلیون که بهندی تره‌تیزک نامند و قضیب گاو سوهان کرده و کرویا هرکدام شش درم عنبر نیم درم همه را سفوف کرده نیم درم از ان به یک زردی تخم‌مرغ نیمبرشت آمیخته بخورند دیگر مربای شقاقل چهار توله اگر مربا بهم

Translation: "...If a man is unable to approach his wife due to illness or old age, the following recipes are recommended: To six grams of each place mix a mixture of heliun (asparagus) seeds, called *teretizek* in Hindi, ox horn, keruya herbs and eggs should be mixed with yolk and fried."

While the term "teretiz" is also present several times in the *Dastur al-Ilaj* treatise, it refers to a distinct herb with differing properties. *Teretiz* (watercress) is used as a treatment for colds, watery stomach swelling, yellow bile, phlegm, black bile, wind, contractions, injuries, and similar diseases. Watercress is an aquatic plant classified under the Brassicaceae family, typically thriving in proximity to water. Traditional medicine recognizes watercress as a remedy for various conditions such as hypercholesterolemia, hyperglycemia, hypertension, arthritis, bronchitis, diuresis, odontalgia, and scurvy. Additionally, it exhibits antiestrogenic properties and can serve as a beneficial nutritional supplement (Kokhdan, 2021).

Za`frān (Saffron) is a costly and fragile spice obtained from the blossoms of crocus plants. Saffron extracts and tinctures have been used for centuries in traditional medicine for the treatment of different syndromes and diseases. Some of these uses have been antispasmodic, eupeptic, sedative, carminative, diaphoretic, expectorant, stomachic, stimulant, aphrodisiac, emmenagogue and abortifacient (Bagur, 2018).

While saffron is known to have various health benefits in traditional medicine, including antioxidant and anti-inflammatory properties, in the manuscript saffron is used for female gynecological prophylaxis (Ṭūlūzān, 1860: 6/11-15):

خوردن طعام شب دو درم از ان معجون بخوردنش دهند که قوت باه بیفزاید دیگر سه زردی تخم‌مرغ نیمبرشت در آن زردی قضیب گاو سوهان کرده بوزن ده گندم عنبر اشهب بوزن دو گندم زعفران سرخ باریک سائیده آمیخته بخورند دیگر فرفیون و عاقرقرحا از

Translation: ...After dinner, you should eat the mixture. In addition, the yolks of three eggs should be partially fried, and the ox horn must be grated and mixed. Ten wheat weight of ambar (grass root) and two wheat weight of red saffron should be ground very finely. It should be mixed and drunk.

Küncüd (Sesame seeds) sesame was first cultivated approximately 7000 years ago. Presently, it is grown in regions such as India, Pakistan, Central Asia, China, and Mediterranean countries. This plant serves not only as a culinary seasoning but also finds applications in cosmetic and medicinal domains. Ibn Sina's medical writings include references to the medicinal use of sesame seeds. The alternative name for sesame, "sesame," is derived from the Assyrian language, signifying an "oily plant." As widely recognized, sesame seeds are notably high in fat, constituting up to 60% of their composition. In the manuscript, an ointment is prepared by incorporating oil derived from sesame seeds (Ṭūlūzān, 1860: 7/1-3):

در کف پا و در کف دست ضماد سازند دیگر روغن کنجد دو توله روغن ارسا که نسخه او که نسخه او در قرابادین است دو توله فرفیون سداب از هرکدام بوزن ده گندم فلفل سیاه باریک سائیده بوزن بیست گندم خردل باریک سائیده بوزن دوازده گندم همه را

Translation: «...the materials must be added, crushed to the weight of 20 wheat, and boiled in a vessel of boiled wine. Filter through a cloth and apply the oil on your feet and palms. Apart from that, you should make arsa oil with sesame oil. The way to make it, as described in the treatise "Kara-badin", is to make an ointment from two oils, grind black pepper equal to the weight of 10 wheat, crush millet with the weight of 20 wheat, mix and boil over low heat. It should not be burnt.»

Dārçın **(**cinnamon**)** offers various health benefits, including its positive impact on blood cholesterol levels, serving as a preventive measure against heart diseases. Additionally, it is known for its detoxifying properties, aiding in body cleansing. Cinnamon is also associated with potential cancer prevention, and its consumption has been linked to improved brain function and memory. Furthermore, it contributes to the well-being of the digestive system and supports overall immunity (Rao, 2014).

One of the plants that are used together with cinnamon is a clove. ***Qaranfil*** (cloves) exhibit significant healing properties and are commonly utilized in folk medicine, often in the form of a decoction (Yadav, 2022: 35). Across the steppe regions of Kazakhstan, these beneficial plants, comprising 29 different species, can be found in various habitats, including meadows around water basins and on the slopes of rocky hills. Meadow slopes also serve as locations where cloves thrive.

Combination of cinnamon and cloves is a common occurrence in a variety of culinary and medicinal uses, where their unique flavors and potential health-promoting properties come together to enhance the overall experience. In the manuscript " Asrār al-Atibbā'" cinnamon and clove`s seeds are combined with other animal fats to create a therapeutic ointment, specifically applied to the male genitalia for healing purposes (Ṭūlūzān, 1860).

ناکیسر نامند شش قطره و عطر قرنفل دو قطره عطر دارچینی یک قطره شراب تند آمیخته بر احلیل ضماد سازند دیگر جندبیدستر و مشک از هرکدام بوزن یک گندم پنجال کبوتر و دارچینی بوزن نیم گندم بشراب تند سائیده ضماد بر احلیل سازند دیگر پیه مرغ و

Translation: «...One of the mixed oils with a similar effect is 6 drops of the scent of pomegranate, 2 drops of the scent of cloves, and 1 drop of cinnamon added to the wine and made into an ointment».

The examples provided in the article are drawn from the initial sections of the manuscript. The introductory pages of the book are specifically dedicated to topics encompassing infertility, female gynecology, and urology.

Conclusion

The examined medical treatises, featured in the articles, encompass a wealth of information regarding plant names (e.g., varieties of onions, the application of wild carrots), the diverse range of herbs, methods of utilization, and their roles in treating both wild and domestic animals (utilizing fat, fur, and organs). These treatises also shed light on traditional folk medicine practices employed in the past but subsequently forgotten, such as techniques (oil application, medicinal preparation, heating in a jar without burning, steaming, and sitting on a hot jar, etc.).

Remarkably, the texts reveal the use of different names for the same plant and their equivalents in various languages, including Hindi, Greek, Persian, and Arabic. This linguistic diversity underscores the extensive experience and comprehensive knowledge possessed by the physicians of that era.

Furthermore, the study underscores the nomadic lifestyle of the people from that time, emphasizing their harmonious coexistence with nature. This not only pertains to animal husbandry but also extends to the utilization of seeds, roots, leaves, stems, bark, and fruits of plants, highlighting a holistic and sustainable approach to living in harmony with the environment.

The works on such a medical topic, which had their own tradition, narrative language, and structure in the Middle Ages, are a data complex, a source of reference information, which provides several opportunities for researchers. These works like “ Asrār al-Atibbā’” and “Dastûr al-’ilāj” allow conducting research not only in the history of medicine, in the field of ethnomedicine, but also in many fields such as sociology, ethnography, psychology, linguistics, folklore and botany, biology, pharmaceuticals.

Based on these conclusions, it can be surmised that traditional remedies have persisted across centuries, with certain remedies retaining their recognized efficacy within the context of contemporary medicine. The perpetuation of these practices highlights the enduring value of historical medical insights in shaping modern therapeutic approaches.

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References

al-Khurāsānī, Sultan ‘Alī. (7.10). “Dastûr al-’ilâj”. Manuscript. Antique salon “Ampir” private fund 7.10 (152). P. 1a-88b.

Bagur M.J. (2018) Saffron: An Old Medicinal Plant and a Potential Novel Functional Food. Molecules. Vol.23, Issue.1. doi: 10.3390/molecules23010030

Kairanbayeva N. (2023). Medicinal Properties of Adyraspan in Turkic Folk Medicine (based on the treatise «Dastûr al-‘Ilāj»). Collection of International Scientific and Practical Conference “Steppe Medicine: Data, History, Applications, Concepts and Terms”. October 4-5, 2022: 55-66.

Kokhdan et al. (2021) A Narrative Review on Therapeutic Potentials of Watercress in Human Disorders. Vol. 2021. *Evidence-Based Complementary and Alternative Medicine*. https://doi.org/10.1155/2021/5516450

Mogilnaya O.D. and etc. (2015). Methodological Recommendations for herbal medicine tests by correspondence students of the Faculty of Pharmacy, specializing in 33.05.01 (060031) Pharmacy. Rostov-on-Don.

Rao P.V., Gan S.H. (2014) Cinnamon: A Multifaceted Medicinal Plant. *Evid Based Complement Alternat Med.*642942. https://doi.org/10.1155%2F2014%2F642942

Sargin S.A. (2021) Potential anti-influenza effective plants used in Turkish folk medicine: A review. *Journal of Ethnopharmacology*. Vol. 265. 113319 https://doi.org/10.1016/j.jep.2020.113319

Shadkam Z. and etc. (2021). Dastûr al-‘ilāj medical treatise and manuscript versions. *Journal of Oriental series.* Vol.3. No.98: 101-110. DOI: https://doi.org/10.26577/JOS.2021.v98.i3.10

Shadkam Z., Tuyakbayev O., Sultanbek K. (2022). Folk Medicine in the Treatise “Dastūr Al-‘Ilāj” in the focus of medical anthropology. *Bulletin of the Eurasian Humanities Institute*. Vol.3: 89-100. https://doi.org/10.55808/1999-4214.2022-3.09

Ṭūlūzān, Iūnānī (1860). Asrār al-Atibbā’ iā mudjarrabāt Īīlat Chaġatāiī. Ṭehrān: Muassase-ie muṭāla’āt-e tarīkh, ṭibb-e islāmī

Tuyakbayev O. and et. (2023). «Asrār al-atibbā’» – the Heritage of Medieval Turkic Medicine in the Persian Language. *Journal of Oriental series.* Vol.4, No.107: 97-104. https://doi.org/10.26577/JOS.2023.v107.i4.010

Yadav Y. et al. (2022) Ethnopharmacology and Traditional Attributes of Clove (Syzygium Aromaticum). *International Journal of Environment and Health Sciences* (IJEHS), Vol. 4, No. 1: 35-38 https://doi.org/10.47062/1190.0402.05

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