

## The Western Medical Tradition and Typology of “Kinds of Medicine”

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The article summarizes the approaches of Western historians of medicine to the typology of the Western medical tradition based on “kinds of medicine”: bedside, library, hospital, laboratory and public.

**Keywords:** *Western medical tradition, kinds of medicine, typology of medicine, Western Europe, historiography*

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Currently, the history of medicine offers one of brightest examples of overcoming disciplinary boundaries. The very nature of this discipline involves research at the crossroads of history (in the traditional sense) and medicine. It became a “mixtures of genres” in the 2<sup>nd</sup> half of the XX century, when representatives of social history, demography, psychology, anthropology, literary criticism and linguistics began studying it. In the last decades, the history of medicine has evolved from a closed specific discipline, primarily oriented towards medical students, into a flexible one, open to a variety of approaches and research trends on the front edge of historical science [1, p. 419].

An overview of contemporary Russian history of medicine shows that such changes are only now coming to a head. Some of the latest examples of new approaches in Russia to the study of the history of medicine include articles by D.V. Mihel [2], A.E. Afanaseva [1] and A. Renner [3], and also, the introduction by U. Shlyumbom, M. Hagner and I.E. Sirotkina to a volume of translations of articles on the history of medicine by European authors [4].

Contemporary researchers have noted that the large body of Western literature concerning the history of medicine, which in other countries has long been classical and on standard reading lists for this subject, are not obtainable in Russia. The originals of these books are rarely found even in central libraries and have not translated into Russian [4, p. 32].

Teaching of the history of medicine in Russian medical schools has its traditions and has not been seriously affected by trends of the latest decades. This tradition goes back to an era when the objectives of teaching the history of medicine included: mastering historical methods of thinking as a part of the dialectical method, tracing mainstream methods, stages and principles of development of medicine, formation of the communist views of a Soviet doctor by using specific material of the history of medicine. In general, the course of the history of medicine in the Soviet years was based on the development of socio-economic formations, natural science and philosophy. The struggle between materialism and idealism was emphasized; bourgeois concepts of the origins and development of medicine were criticized, as were bourgeois medical theories and religious concepts [5].

A comparison of programs teaching the history of medicine in Russian medical schools over the last half century indicates that they are based on five historical periods: primitive society (primitive communities system) Ancient Era (slave society), the Middle Ages (the era of feudalism), the Modern Era (the era of capitalism), the Contemporary Era (the era of socialism, imperialism) [6-9]. Western authors use the same approach, based on space and time of a community, particularly when describing the history of medicine of the first three periods [10, 11]. However, when outlining the history of medicine after the era of the Middle Ages, foreign scholars usually depart from chronological approach and introduce such concepts as “scientific revolution”, “alternative medicine”, “gender”, “medicalization”, “professionalization” etc. Although the Contempo-

rary Era approach towards the history of medicine, based on medical specialties, is primarily used in Russia, it is also used in the West.

This article will try to summarize the European approach to the study of the history of medicine, developed by Western historians of medicine, through a "kinds of medicine" typology. This concept creates a general paradigm for understanding the history of medicine. It begins with Ancient Greece, when foundations were laid for "the Western medical tradition".

There are five "kinds of medicine" (see the table below): patient bedside, library, hospital, laboratory and social medicine. They represent the different goals and places of work a doctor may have. Although the material can be placed in chronological order, all of these "kinds of medicine" are cumulative by nature.

Concepts about the ways of obtaining medical knowledge have been debated for some time in the Western scientific press. The largest response was from the approach of N. Juison, who distinguished between three "kinds of medicine" (patient bedside, hospital and laboratory) [13], and E. Akerkneht, who experimented with four "kinds" of medicine (patient bedside, book, hospital and laboratory) [14]. This concept was poorly described in Russian literature. It was dealt with by researchers of historical and medical topics in literature [15] and culture [16]. The approaches outlined in the book by W. Buynem "History of Medicine: A Very Short Introduction" [12] served as the basis for this article.

According to this concept, *medicine at the patient's bedside*, beginning with Hippocrates, has been reflected in contemporary first aid medical assistance. Despite the fact that Ancient Greek med-

icine was multifaceted, there is one perspective that penetrates the collective works of Hippocrates and makes the name of this famous Greek physician particularly attractive to contemporary physicians. The approach used by authors of the Hippocratic collection views the patient as a whole. This can be correlated to the contemporary view of holistics (from ancient Greek. ἔλος – "whole, complete"). These scholars view the world as a product of creative evolution directed by an intangible "factor of integrity". Accordingly, contemporary researchers of holistic medicine hold Hippocrates as the originator of their teachings. However, holistics was deeply rooted and widespread in the cultural values of ancient Greek society [12, p. 6].

Another key aspect of ancient Greek medicine was humoralism. According to this theory, there are four bodily fluids in the human body and health depends on their balance; fluids were in the epicenter of physiology and pathology. Although the humoral doctrine is not included in all the treatises of the "Compendium of Hippocrates", Galen, the giant of ancient medicine, used this very doctrine as a foundation for medical theory. It was specifically due to Galen that humoralism was dominant in the medical world of Western Europe up to the XVIII century.

Humoralism is related to two traditions long preserved in European medicine: balance and moderation. Hippocrates regarded health as the result of the complete balance of all fluids. Imbalance, loss or deficiency of any of the fluids, or its poor quality (often described as decay or rot) lead to disease. Hippocrates interprets getting rid of fluids as evidence of healing forces of nature (*vix medicatrix naturae*). This doctrine has long been

Type	Object	Type or location of education	Purpose	Example
Patient bedside	Patient in general	Mentoring	Treatment	Hippocrates (5th cent. BC)
Library	Text	Scholasticism, linguistic, university	Preservation, recovery, commentary	Constantine the African (10th cent.)
Hospital	Patient, agency	Hospital	Diagnosis	Rene Laënnec (19th cent.)
Social medicine	Population, statistics	Society	Prevention	John Simon (19th cent.)
Laboratory	Model (animal)	Laboratory	Understanding	Claude Bernard (19th cent.)

discussed in medicine and only in the XIX century was it classified as a "self-limiting disease". The power of contemporary medicine can easily adapt this concept: the majority of diseases, treated or untreated, are self-limiting [12, p. 12].

*Library medicine* The Middle Ages is somewhat similar to the information boom, which characterizes the contemporary medical world (and not just the medical world). In addition to this main contribution, which preserves and promotes Greek and Roman heritage, this era (from V century until the invention of the printing press) also radically changed the nature of medical establishments. From that era to ours, three very important things remain: hospitals, hierarchical division of physicians, and universities where the medical elite study [12, p. 20].

According to Western medical historians, the period when library medicine predominated lasted until the end of the XVIII century. Thomas Sydenham has a special place among clinicians of the early modern era. Known as the "English Hippocrates", he appealed for the return of medicine to empiricism as it was defined by the "father of medicine". He wrote that medicine should carefully describe illnesses (he described gout, hysteria, smallpox and other illnesses). After making a correct diagnosis, it is necessary to begin empirical search for a cure. He widely promoted the new medicine from the New World - quinine (formerly called Peruvian bark, Jesuit bark, reflecting its origin) for the treatment of intermittent fever (malaria).

Sydenham's experience in the use of Peruvian bark completely changed the entire concept of the disease. Although he still adhered to Hippocratic humoralism, it seemed that quinine completely stopped intermittent fever, its causes and consequences. It appeared to be a specific and very effective cure for the disease in all patients. This circumstance inspired in him a belief that diseases could be classified the same way botanists classify plants and that variations in the diseases and symptoms of people are random, like the differences between violets or other flowers.

The reflections of Sydenham can be viewed as a turning point in the development of clinical thinking. It inspired future generations of doctors to create new classifications of diseases. More importantly, it was the beginning of the modern pro-

cess of differentiation between disease, a person suffering from this disease and defining those universal features of each type of disease, thus allowing for the creation of specific rational treatment. Ironically, Sydenham considered himself a loyal follower of Hippocrates, but those reflections led him to a medical dilemma: how to keep faith in the individuality of each patient and at the same time apply more general discoveries of a science-based diagnosis and therapy [12, p. 38]?

In the XIX century, *hospital medicine* was, in a way, one of the brightest examples of patient beside medicine. It used new diagnostic and therapeutic instruments and were of higher medical competency. This is what we now expect from modern hospitals. The phrase "hospital medicine" (clinical medicine) has specific meaning for historians. Viewed at separately, hospitals appeared at the dawn of the Middle Ages but, "medicine", meaning medical practice, has a much longer history. Nevertheless, "hospital medicine" is a convenient symbol of an important phenomenon, which emerged and developed in medical circles of France, particularly in Paris, between 1789 and 1848. [17].

This French period is sometimes described as a "medical revolution", possibly due to the fact that it grew out of political revolution. Changes in the consciousness of doctors of this era included the introduction of surgical thinking into medicine. While doctors traditionally dealt with the entire body (with its fluids, spirits (souls) or other general concepts of disease), surgeons always dealt with the specific: abscesses, fractures of bones, specific pathology, which needed certain intervention in a particular place. With the rise of the French medical schools, the word *lesion* ("disorder", "injury") acquired a medical meaning. Injury was a pathological change caused by a disease. It could be seen with or without a microscope. Doctors were taught to think using surgical categories, and solid parts of the body became subjects of medical study.

French hospital medicine was based on three pillars. They were not entirely new, but together they created a new view of disease. These three columns were: 1) physical diagnosis, 2) the interrelationship between clinical and pathological, and 3) the use of a large number of cases to clarify diagnosis and development of therapy [12, p. 46].

*Medicine in society* includes the infrastructure related to the environment: clean water, waste disposal, vaccination programs, healthy and safe workplaces, analysis of morbidity and its interaction with diet, habits, and the impact of various substances. As the term itself suggests, the purpose of public health is to preserve health and prevent or control of diseases. The traditional focus of public health was on epidemic illnesses; however, there was one more aspect of prevention of illnesses, directed to preservation of individual health - hygiene. Although these two areas represent two different traditions within medicine, they are often intertwined. They have the same objective, the prevention of illnesses. Hygiene is reduced more and more to the phrase "lifestyle medicine". However, in both schools the state plays a significant defining role. When discussing social medicine, a great amount of attention is given to three quantitative measurements of medicine (and of society as a whole): survey, surveillance and significance [12, p. 85].

*Laboratory medicine* as a rule exists only in laboratories. It can lead to more effective medicine and better understanding of the internal processes of the body, thus improving diagnosis and treatment. Starting with the early modern era, experience has increasingly been part of experiments, more commonly conducted in laboratories. The word, "laboratory" literally means a place where people work. Originally, laboratories were located in living quarters. They were just rooms where those who had enough free time tried to reveal the secrets of nature. One of the few tools used in those first scientific laboratories was a microscope. Its widespread usage resulted in the creation of the cell theory. Cell theory became generally acknowledged in the 1830s and it can be regarded as the foundation of both modern medical science and biology.

The second element of laboratory medicine is germ theory. Traditionally, germ theory has been regarded as the beginning of effective and, therefore, modern medicine. Revisionist historians point out that it took many decades of disputes before there was any kind of consensus and clarification on the role of microorganisms as the causative agents of important historical diseases such as typhoid fever, tuberculosis, syphilis, cholera, malaria,

smallpox, influenza and many others. Moreover, this revisionist point of view emphasizes that, long after the death of Pasteur, medicine has remained therapeutically insufficient. Beginning in the 1950s, Thomas McKeown, professor of social medicine in Birmingham, published a series of important research in which he stated that the reduction of mortality in Western countries was primarily due to improved food and overall quality of life; whereas, at least until recent times, the contribution of official medicine had been very negligible [18, 19].

According to this understanding of XIX century medicine, the works of Louis Pasteur, Robert Koch and other advocates of microbiology and bacteriology, together with their followers working in laboratories, could be considered interesting in terms of research; however, the fundamental importance of these achievements for hospital patients and life expectancy of the population is over exaggerated.

Germ theory is deeply and widely rooted in medical practice. However, two other factors draw more attention. The first is antiseptics, which was followed by sterilization and surgery. The use of drugs for anesthesia (ether and chloroform), beginning in the 1840s, changed the working priorities of a surgeon. From now on, pain could be controlled. Both these things were due to achievements in chemistry, which again confirmed the importance of laboratory work for clinical practice. The second important consequence of the influence of bacteriology on medical practice was an opportunity to understand the sources and types of infections and epidemic illnesses and the ability to react to them accordingly. Laboratory medicine provided information to social medicine.

At the end of the XIX century, bacteriology greatly influenced the lives of ordinary people. The biggest influence was due to experimental physiology, the third important element of laboratory medicine. Physiologists had begun systematic dissections of living organisms [12, p. 114].

In the Western history of medicine, there is a widely known allegory of this discipline, the ancient Roman two-faced god Janus, the god of doors, entrances, exits, various passages, as well as of the beginning and the end. Janus was portrayed with two faces, facing opposite sides (to the past and to



the future). A well-known Swiss French scientist A. Zigerist wrote that one face of medical history was the eye of a doctor directed to the future; the other one was the eye of the historian trying to cast light on the past [20, 21]. Therefore, contemporary medicine and future medicine is not uncommon in Western historical and medical writings.

Historical categories ("kinds of medicine"), according to Western historians of medicine, are still alive. They provide a method for analyzing the history of medicine as a continuation of the life of people of "today": taxpayers, healthcare users, and individuals who directly benefit from efforts in the field of public health. "Kinds of medicine" shows the main distribution channels of modern healthcare budgets, particularly in the U.S., with its various active lobbying groups and identification of focus groups. Primary health care, hospital services, public health, biomedical research, creation and provision of information are on the list of health issues before the typical government ministers. The problem is that these categories in some sense compete with one another because funds are always limited. The more you spend on research, the less there is to pay hospital staff or provide for the public health, and vice versa.

In a historical context, these categories overlap. The Ancient Greeks and Romans worked out a system of original approaches to the resolution of health issues. They were trying to prevent diseases among the common people, had simple institutions for treating slaves and soldiers, collected medical texts and stored them in special places; they were trying to acquire new medical knowledge in course their research and of course provided their patients with bedside treatment.

However, the modern categories of hospital, social and laboratory appeared in their present form only in the XIX century. They are viewed as part of "modernity". The same typology can be used to structure the major trends of medical development in the XX and XXI centuries, when these "kinds of medicine" became closely intertwined.

The above stated concept of five "kinds of medicine" attempts to avoid the old-fashioned approach, known as Whiggism in English, where the history of medicine is presented as progressive chain of stages, inevitably leading to the mod-

ern age. This approach to history takes from past scientific knowledge only those things that lead directly to modern scientific views. In a revised version of Whiggism, intellectual values replace moral ones. Therefore, sexism, racism and the other "isms" of our ancestors are condemned.

Such a characterization of the "types of medicine" focuses exclusively on Western medical traditions prevalent in the structure of medical services and healthcare payment systems of the West. They are a worldwide influential force.

The main drawback of using this concept of "types of medicine" is that it is Eurocentric and its main focus is on Anglo – American, German-speaking countries and France. There is no place in it for the countries of Eastern Europe, including Russia. As has been noted by researchers, such a Eurocentric defect is dangerous because the models developed for Western society could be recklessly spread to other regions of the world as a general criterion. Theories of medical professionalization focusing heavily on the development of the profession in Anglo-Saxon countries were subject to particular criticism. However, doctors with university education there had much more independence than those in, for example, France, Germany and Russia, where the state participated in the establishment of professional standards as a leader and employer [3, p . 215].

There are many ways of structuring and presenting the material used by historians. The approach presented in the article seems historically understandable and can be useful in presenting the material to inquisitive students. At the department of public health and healthcare of the Far Eastern State Medical University (in Khabarovsk), in the 2013-2014 school year, students of medical and pediatric faculties were offered classes on the History of Medicine, based on the concept of five "types of medicine". Additionally, the textbook "The History of Medicine (The Medical Tradition of the West)" is being finalized for publication. This manual details the approaches of the English historian of medicine W. Buynem and the views of other scientist on the typology of the Western medical tradition. We hope that this textbook will be of interest to teachers of medical history in our country and to those interested in this discipline.

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