

**REVIEW  
ARTICLE**

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## From the Medicine in Ottoman Madrasahs to Faculty of Medicine

### ABSTRACT

Madrasah refers to the institutions used for educational activities and furnished with the equipment required for this purpose. The *madrasah* that emerged in the 10<sup>th</sup> century was re-designed and developed as the model of an "education institution" in the late 11<sup>th</sup> century by Nizam'ül-Mülk, the vizier of the Great Seljuks. The geography of the Ottoman Empire extended over the Asian, African, and European continents; and thus, the science in this country was inspired by various regions of the world. With regard to scientific research, health and medicine were two the main fields of study in the Ottoman Empire, as was the case in other Islamic civilizations. *Dâru't – Tıb*, as a specialized madrasah, was one of the institutions where medical research was conducted, in addition to other madrasahs, *darüşşifas* (hospitals) and especially the Enderun Hospital. The new medical training developing in Europe could not enter these madrasahs. By command of Sultan Mahmud II, *Tıphâne* and *Cerrahhâne-i Amire* were founded on March 14, 1827.

The medical training that started with *Tıbhâne-i Amire* progressed uninterrupted with continuous innovation. A new building was demanded for this school in May 1837. The Enderun building at Galatasaray was redesigned, and the institution moved to this building in October 1838. The new period of education started with new professors in February 1839. The school was renamed as *Mekteb-i Tıbbiye-i Adliye-i Şahane*. With the establishment of *Darülfünun-ı Şahane* in 1900, *Mekteb-i Tıbbiye* was accepted as a branch of the *Darülfünun*; however, this process was completed in 1909.

**Keywords:** History of Medicine, Education, Medicine, School of Medicine

## Osmanlı Medreselerinden Tıp Fakültesine: Tıp

### ÖZ

Medrese, eğitim ve öğretim faaliyetlerine tahsis edilen ve bu amaçla gerekli unsurların sağlandığı eğitim kurumlarıdır. Yaklaşık 10. yüzyılda ortaya çıkmaya başlayan medreseleri, 11. asrın sonlarına doğru bir "eğitim kurumu" modeli olarak projelendirip uygulamaya koyan, Büyük Selçuklu veziri Nizam'ül-Mülk'tür. Bir Cihan devleti olan Osmanlı Devleti'nin ise Asya, Afrika ve Avrupa kıtalarına sahip coğrafyasıyla, ilim de değişik bölgelerden beslenmiş olduğunu söylemek mümkündür. İşte bu bilim çalışmaları içinde diğer İslam uygarlıklarında olduğu gibi Osmanlı Devleti'nde de temel araştırma konularından biri sağlık çalışmaları olmuştur. İhtisas medreseleri içerisindeki Dâru't-Tıb da sağlık çalışmalarının yürütüldüğü yerler içerisinde sayılabilirken, diğer yerler içinde de; Medreseler, darüşşifalar ve Enderun Hastanesi örnek gösterilebilir. Ondokuzuncu yüzyıla gelindiğinde; Avrupa'da gelişen yeni tıp eğitimi bu medreselere girmemiştir. II. Mahmut'un isteğiyle Yeniçeri Ocağı kaldırıldığı için boş kalan Acemioğlanlar Kışlası yanındaki Tulumbacıbaşı Konağı'nda 14 Mart 1827'de Tıphâne ve Cerrahhâne-i Amire kurulmuştur.

Tıbhâne-i Amire ile başlayan bu eğitim hiç ara vermeden ve kendini yenileyerek devam etmiştir. Mayıs 1837 yılına gelindiğinde bu okul için yeni bir bina talep edilmiştir. Bunun için, Galatasaray'daki Enderun binası düşünülmüş ve yapılan düzenlemeyle Ekim 1838'de bu binaya taşınmıştır. Yeni eğitim dönemi yeni hocalar ile Şubat 1839'da açılmıştır. Yenilenen binasıyla okulun ismi Mekteb-i Tıbbiye-i Adliye-i Şahane olmuştur. Mekteb-i Tıbbiye 1900'de Darülfünun-ı Şahane'nin kuruluşundan itibaren Darülfünun'un bir şubesi olarak kabul edilmiş ancak tam anlamıyla Darülfünun'un bir şubesi haline gelmesi 1909'da gerçekleşmiştir.

**Anahtar Kelimeler:** Tıp Tarihi, Eğitim, Tıp, Tıp Okulu

## INTRODUCTION

### 1. OTTOMAN EMPIRE MADRASAH

#### 1.1. PLACE OF MADRASAH IN ISLAMIC CIVILIZATION

*Madrasah* refers to the institutions used for educational activities and furnished with the equipment required for this purpose (1). The madrasah that emerged in the 10<sup>th</sup> century was re-designed and developed as the model of "an education institution" in the late 11<sup>th</sup> century by Nizam'ül-Mülk, the vizier of the Great Seljuks (2). As an educational institution, its aim was assimilation of accumulated knowledge, and development of knowledge by evaluating new ideas. Additional aims included presentation of culture with accumulated knowledge, providing harmony for students, offering them guidance to the changing conditions of the world, and preparing them to be officers, artists, craftsmen, scientists, and bureaucrats for service to their communities and society (2). All the countries of the Islamic world had similar rules and regulations about trust (endowment) conditions: mosques, madrasahs, rest houses, hospitals, bridges, fountains, religious/scientific or social patterns of living. These facilities were mostly established, constructed and maintained by associated trusts (endowments) (3).

Throughout the history of Islamic civilization, science of medicine, education of medicine and health-care services had very important roles and places in Islamic communities. The science of medicine and occupation of medicine were promoted by almost all classical period Islamic governors and their close associates (mostly rich and wealthy people). Famous traveller Ibn Cübeyr declared that "hospitals are reputable institutions that Islam boasts" (4).

The birth and enlargement of Islamic civilization appeared on the scene of world history as a progressive, trailblazing revolution. According to Server Tanilli (a Turkish historian who declared science to be Islam's greatest area of innovation): "The Islamic world had always a *philosophia*." By means of a rationalist approach, ancient Greek knowledge was reviewed by Muslim scientific philosophers. They molded ancient knowledge inside Islam's melting pot. They performed studies similar to today's scientists. Astrosciences, optics, geography, mathematics, chemistry, pharmacy and medicine were developed by Islamic scientists in unique manners (5,6). These sciences were studied in special madrasahs which were the *science houses* of Islamic civilization. There were basic differences between Islamic madrasahs and European universities. Their organization, rules and regulations were completely different. The madrasah was established according to trust (endowment) regulations of Islamic law. By contrast, the university was established according to Roman law based on *Legally Autonomous Corporate Bodies* (3). There were also important

differences between madrasah traditions and university traditions. For example, after graduation from madrasah and university education, their manner of documentation was very different. A written authorization document was given to the graduating university student, a document which today is known as a "diploma." By contrast, a madrasah student received a certificate from his teacher naming the lecture he studied. Then, the student received further lectures from higher teachers (professors), earning further certificates. After successfully completing all lectures, the student graduated with an *İcazetname*, a written authorization document. The authorizing professor's name was written on the *İcazetname*. Also, names of other teachers were recorded and written (like a chain up to the uppermost professor/scientist's name) on the *İcazetname*.

Written authorization documents (*İcazetname*) varied according to their index: either theological which were "commentary on the Koran" (*tefsir*), "the prophet Mohammad's sayings/deeds" (*hadis*) and "Islamic canonical jurisprudence" (*fikh*) or positive sciences which were *logos* (*kelâm*) and philosophy (*felsefe*). Theological lectures were based on "chieftain of Islam" (*sadr-ı İslam*) and positive science lectures were based on specialized lecturers (3).

In order to evaluate science in the Ottoman Empire, we have to consider a very large geography. It extended over the Asian, African and European continents; and thus, the science in this country was inspired by various regions of the world. Interaction with many cultures accelerated scientific development in the Ottoman Empire. From the beginning of the Ottoman Empire, the madrasah was always the center of science, education and schooling. Until the collapse of the Ottoman Empire in 1922, madrasah continued education until the early 20<sup>th</sup> century. Ottomans built mosques, schools and madrasahs for the needs of society. Ottoman sultans created education breakthroughs by building madrasahs. Sultans' close relatives and other wealthy people also helped madrasahs and other facilities. Thus, hundreds (and even thousands) of educational facilities were opened in many places of the Ottoman Empire, including villages. Anatolia was the Ottoman region which also took its share from these facilities (much more than other associated regions) (1,7).

Madrasahs were very important institutions of Islamic civilization. They were today's high schools and universities. Madrasahs appeared first during the Great Seljukian period of rule. These institutions achieved great success particularly in the era of growth of the Ottoman Empire. The Ottoman Empire attached great importance to education in madrasahs, to science and scientists. After the 14<sup>th</sup> century, the Ottoman Empire manifested a state tradition (8). Initial significant works of scientific research were performed mainly after the 14<sup>th</sup> century. The first

madrasah of the Ottoman's was built during the ruling period of Gazi Orhan Bey (second sultan of the Ottoman Empire) in 1330 (Gregorian calendar; year 731 Hegira calendar). Iznik (Nicaene) was the state capital. Ottoman Empire was just a small *seigniority* then. The first professor was Şerefüddin Davud-i Kayseri, one of the most famous Turkish scientists and reflectives. Manastır Madrasah was built during this period (1,9,10). Orhan Gazi conquered Bursa (Prusa city) on 6 April 1326. Bursa (Prusa city) became the state capital. Ottoman madrasahs of this initial period (14<sup>th</sup> century) had the prominent influence of foreign scientists (not raised in Ottoman lands). Their philosophies had great impact on the tradition of education.

The ruling period of Mehmet II (Fatih Sultan Mehmet, 15<sup>th</sup> century) was another great era in which madrasahs achieved enormous development and breakthroughs. Fatih opened Sahn-ı Seman madrasahs and classified all madrasahs with his new order, regulations and legislation (10). Madrasahs also had a hierarchy. There was a gradually rising hierarchical structure (except in the Enderun schools). The lowest structure in the hierarchy was the Tecrid madrasahs, where Hâşiye-i Tecrid—a book about logos (*kelâm*)—was taught. The second (middle) hierarchy structure was Miftâh madrasahs where the Miftâh book was taught. Above them, the third (upper) hierarchical structure was Kırklı madrasahs (3). Similarly, Kanuni Sultan Süleyman (Suleiman the Magnificent, 16<sup>th</sup> century) ordered the establishment of a madrasah inside a *külliye* designed by chief architect Mimar Sinan, called Süleymaniye Külliye (11).

The first and only medical madrasah of the Ottoman Empire which trained doctors was the *darüşşifa* (hospital) complex inside Süleymaniye Külliye. There were four madrasahs in Külliye for education of positive (mental) and transferral (religion or literature) sciences. There was one *darülhadis* in Külliye for education of "the prophet Mohammad's sayings/deeds" (*hadis*). Independent medical education was given in Süleymaniye Madrasah, which was the faculty of medicine. The executive research hospital was called Süleymaniye Darüşşifa. Süleymaniye medical madrasah was a specialized madrasah where eight students (*danişmend*) were under supervision of one professor (*müderres*). Medical students had to finish initial classical madrasah education first in the Süleymaniye Külliye. *Danişmend*s (madrasah students) were assigned to palace or other *darüşşifas* (hospitals) according to their performances (12). Süleymaniye Külliye had all these madrasahs where traditional education and schooling were performed until the 18th century. Western (modern) style schools started education after the 18<sup>th</sup> century (9). Development and progression to modern education was observed all over Ottoman regions (19<sup>th</sup> century) and had great

impact on society, especially in the 20<sup>th</sup> century. Similar to other Islamic civilizations, the Ottoman Empire also had community health care services. They were basic research fields among all other scientific research areas. Front benchers (wealthy people) of the Ottoman Empire attached great importance to health and medicine. Hospitals of those years (*darüşşifa*) were quite independent and administrated by their own trusts (endowments). However, the Sultan issued direct orders for assignments, designations and withdrawals of Darüşşifa (13).

## 1.2 SPECIALIZATION (İHTİSAS) MADRASAHS

Osmanlı State attached great importance to specialization madrasahs. Some of the Ottoman specialization madrasahs were called *Dâru'l - Hadis*, *Dâru't -Tıb*, and *Dâru'l Kurra*.

**1.2.1. Dâru'l Hadis:** Similar to other Islamic civilizations, *Dâru'l -Hadis* was also very important for the Ottoman Empire. This scientific branch dealt with education of "the prophet Mohammad's sayings/deeds" (*hadis*). *Dâru'l -Hadis* also dealt with other branches such as interpretation (*tefsir*), and canon law (*fikih*) (10,11).

**1.2.2. Dâru't-Tıb:** Similar to other Islamic civilizations, practice was also very important in medical education. Human beings were primary elements of civilizations. Therefore the life sciences and health care were essential fields of effort. Since the foundation of the Ottoman Empire, the practice of medicine carried great importance. While building new medical facilities, the Ottoman Empire imitated *Dâru's-şifa* examples. The first Ottoman *Dâru's-şifa* was built during the period of Yıldırım Beyazıd (14<sup>th</sup> century). Then, more *Dâru's-şifa* (hospital) complexes were built during the period of Fatih and the second Beyazıd (15<sup>th</sup> century) in Istanbul and Edirne (11,14). There is no significant information about education given in *Dâru's-şifa*. Apparently, other facilities were dealing with theoretical sciences while *Dâru's-şifa* (*Dâru't- Tıb*) was mostly dealing with practical education.

**1.2.3. Dâru'l-Kurra:** Another field of study was religion and religious works, where fundamentals of society were under research. Mosques/Jama service people were also educated in madrasahs inside Külliye. When students successfully finished *Sıbyan mektebi* (primary school), they were selected for madrasah education. Their teachers were called *şeyhü'l-kurra*, the best readers of Kur'an (by heart) in those years (11). The most important *Dâru'l-Kurra* was named Yıldırım Dar'ul Kurrar (10).

## 1.3. DOCTOR TRAINING METHOD OF OTTOMAN EMPIRE

There were special characteristics of the Ottoman method of doctor education which were in fact modifications of the master-apprentice method (15). Internists were called *tabip* and surgeons were called *cerrah*, eye doctors (ophthalmologists) were

called *kehhal*, orthopedists were called *kırık-çıkıkcı*, pharmacists were called *şerbetçiler*, or *attarlar*, and many other specialization fields were also present. Their education was also specific. Ottoman classical doctors were trained as master-apprentice and then they were practically trained in research hospitals. There were two names given to medical students in Ottoman hospitals: *çirağ* and *şakird*. Each of them was assigned to a master. They were supposed to learn the art directly from the master. If a medical student wanted to be a doctor, he was called *Talib*. An apprentice of a doctor was called *şakird*. Medical cases were examined by *şakird* in *Darüşşifa* hospitals. The madrasah library contained many books to read. The *şakird* was supposed to learn theoretical medical knowledge in the library (16). Experienced doctors had four elements (*anasır-ı Erbaa, ahlât-ı Erbaa*). They had theoretical medical knowledge of both diagnosis and treatment. Also, they appropriately determined and diagnosed personal characteristics of each patient. Drugs and dosages should be correctly selected for each patient individually. Theory should be transferred to practice. Knowledge gained from clinical observations should be supported with medical background knowledge. By this approach, basic medical knowledge of traditional medical authorities should be consolidated with new clinical experiences (17).

All of the people dealing with treatment arts in the Ottoman Empire were working under an organization of artisan extension of *ahilik* (a type of syndicate). They were all trained separately in master-apprentice arrangements. Artisan doctors' education started like any other artisans as a master-apprentice model (11,18). The education and formation of doctors were very important issues in society. A variety of characteristics were considered essential for being a doctor. The most important characteristics were experience, mastery, and competency. In *Fatih Darüşşifa*, the obligatory condition was being a "tried and experienced specialist". In *Edirne Darüşşifa*, the obligatory condition was being "*mâhir*". In *Süleymaniye Darüşşifa*, the obligatory condition was being "ingenious and experienced". In *Atik Valide Darüşşifa*, the obligatory condition was being a "master of medical sciences". In *Manisa Darüşşifa*, the obligatory condition was being a "specialist and proficient for all issues". All of these conditions were obligatory "in their own words" for designation of doctors (19,20). For example, according to the *Edirne Darüşşifa* trust (endowment), "Brilliant, intelligent, well-trained, cultivated and proficient doctors should be selected. When a doctor examines patients, he should diagnose and treat patients with care, in accordance with medical law, rules, regulations and legislation" (19,20).

Military surgeons were selected from available doctors. The Ottoman Empire was

actually a World ("*Cihan*") State and its army was the most important institution. The main principle was gaining territory through wars and conquests. Therefore, special doctors/surgeons had to be educated for the needs of the army. According to a note written to the Sultan, the Chief Surgeon of the Army (chief of forty surgeons) made a formal request for the requirements of his surgeons (bread, meat, and other needs) (21), (**Figure 1**). As understood from such historical documents, the Ottoman Empire attached great importance to the needs of doctors/surgeons. Medical education was also a very important issue. The Ottoman Empire obeyed particular rules when assigning the doctors or surgeons. It is also very well known from historical documents that only a very small percent of successful surgeons and *kehals* (eye doctors) were accepted into *Palace Organization of Ehl-i hiref* (an elite health team inside the palace).

#### 1.4. PLACES WHERE DOCTORS TRAINED

##### 1.4.1. Madrasah and Darüşşifa (Hospital)

After Fatih Sultan Mehmet conquered Istanbul in 1453, Istanbul became the new capital of the Ottoman Empire, and also became the capital of fine arts and science. He wanted Istanbul to be the greatest center of science, and founded Fatih Külliye (the university carrying his name) (22). Associated Sahn-ı Seman madrasahs were built next to Fatih Külliye. There were Sıbyan *mektebi* (primary and secondary schools), eight Sahn-ı Seman madrasahs and eight more small madrasahs at the back courtyard. The names of some madrasahs were respectively as follows: madrasah-i üla, madrasah-i saniye, madrasah-i salise and madrasah-i rabia. In addition, there were specialized madrasahs called Darü'l-Hadis and a medical madrasah called Darü't-tib. All the expenses of these facilities were granted by the Palace in order to support their community service function (11). Darü'l-Hadis professors received 50 *akçe* (old currency unit), whereas Darü't-tib professors received 25 *akçe*. Fatih Külliye (the university carrying his name) had 70 rooms and 80 domes (21). There were six scientific institutions in total throughout the Ottoman Empire; three of them were dealing with astronomy, three of them dealing with medicine (23,24).

The military and civilian needs of the State were provided by educated doctors. For their education, Süleymaniye medical madrasah was built inside Süleymaniye Külliye during the period of Kanuni Sultan Süleyman (25). Medical research scientists were also very well educated. Western languages were spoken by doctors: Italian, Greek, Latin and French. Translated books were followed for novel developments (20). According to one historical document, Ebubekir Efendi was one of the professors of those madrasahs, and was so successful that he was promoted and assigned to be the military Chief-Surgeon (26), (**Figure 2**).

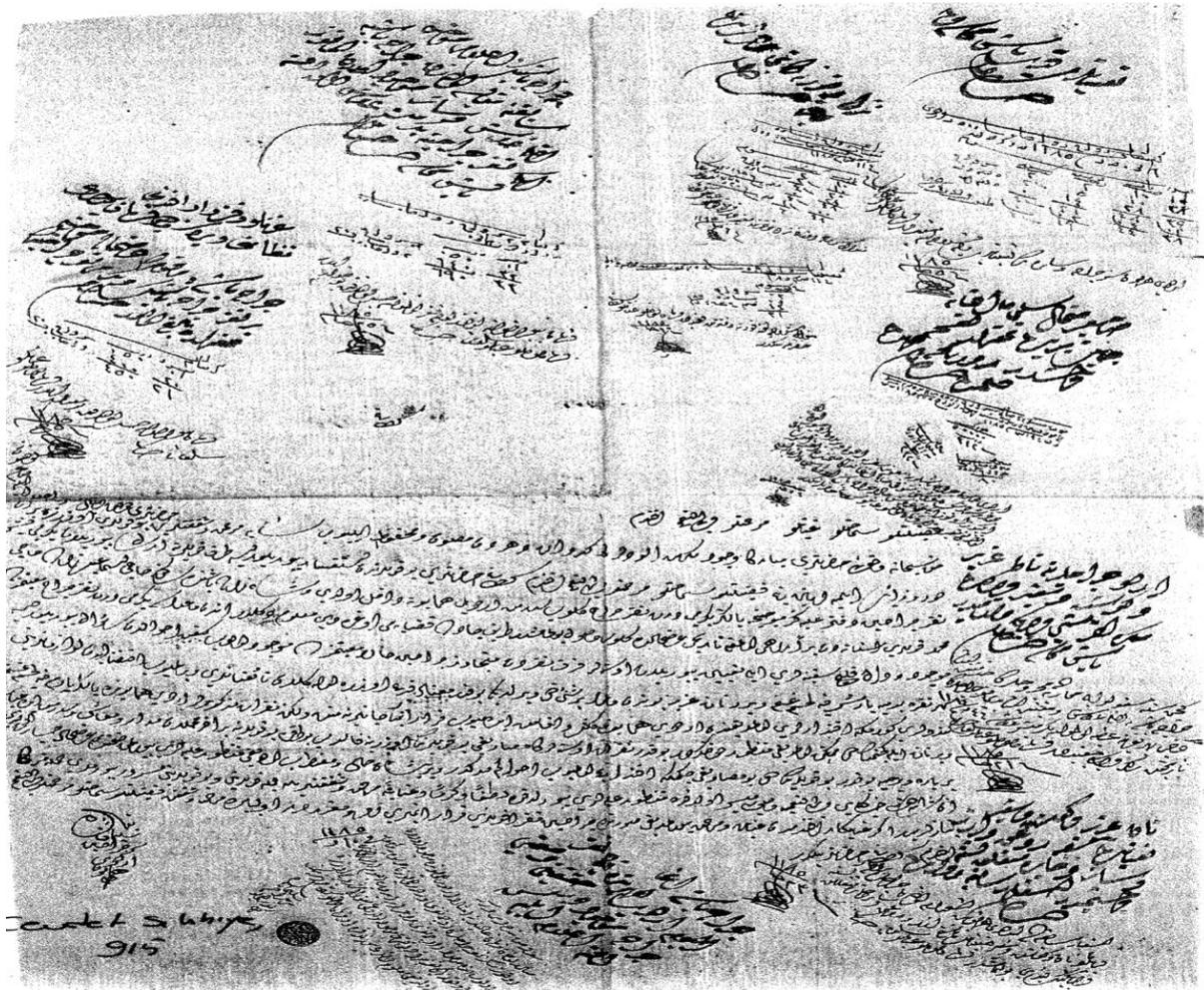


Figure 1. Prime Ministry Archive, Cevdet Sıhhiye, No:915.



Figure 2. Prime Ministry Archive, Cevdet Sıhhiye, No:759.

#### 1.4. 2. Enderun Hospital

Another important health facility was the Enderun Hospital inside Topkapı Palace. The founding date is controversial. Descriptions in historical documents (15<sup>th</sup> century) did not include any hospital-like structure at the right side of Bâb-ı Humâyun. However; in the map of Vavassore (a Venetian cartographer) there was an unidentified building or structure which may be the hospital (27). Another controversial resource suggests that the founder of Enderun was Mehmet II. Another 16th century historian Mustafa Ali suggests that Suleiman I (the Magnificent) was the founder of “*Hastalar Sarayı* (Palace of Patients)” or “*Hastalar Odası* (Room of Patients)” (27). On the other hand, *Galatasaray-ı Mekteb-i Hastane* (Galatasaray school hospital) was a preparatory school of Enderun Hospital inside Topkapı Palace. *Galatasaray-ı Mekteb-i Hastane* (Galatasaray school hospital) was built by Beyazıt II. It is reasonable to say that this hospital complex played an important role for the Ottoman Empire. Enderun Hospital inside Topkapı Palace had two sources of students. These were:

1. **Peñçik Boys (Peñçik Oğlan):** Prisoners of war. These were Christian boys; tall and strong ones were taken into military school whereas short, thin and clever ones were selected into Enderun (if they proved to be intelligent enough for education) (13).
2. **Devşirme Boys (Devşirme Oğlan):** From the conquered Christian lands, explorers assigned by the Sultan selected one boy from 40 houses/families. They took the boys from Christian families and brought them to Istanbul. Volunteer families were preferred. These boys were sent to Acemioğlanlar Ocağı (a rookie recruitment camp), then Janissary Camp or Enderun.

Concisely, Enderun was the (Topkapı) Palace School. Superiorly gifted children were educated inside this historic institution. Although there were several allegations about the institution "Enderun", it was the unique education center which served hundreds of years and raised many governors, officers, statesmen, ministers and even prime ministers. The Enderun charter was reorganized by Fatih Sultan Mehmet. Over 400 years, Enderun Hospital inside Topkapı Palace served the country with these conclusive sentences: “Besides everything, it was the way of Turkish Sultans’ selection and education of extraordinary talented boys” (28).

The “Lag Period of the Ottoman Empire” (17-18<sup>th</sup> century) was characterized by many distortions, disturbances and disorders in every field of State affairs. *Devşirme* tradition was also distorted. Once, it had strong traditions and effective implementations, but gradually deteriorated in subsequent centuries.

#### 1.5. CHIEF-DOCTOR

During the pre-Islamic period of Turkish history, there was one chief-doctor above all doctors. Two ancient Turkish doctors were Ata Sagun and Otacı. The chief-doctor was called *Otacı İligi* and *Tabiplerin Prensi*, which means “prince of doctors”. When Turkish tribes changed their religion to Islam, names also changed, such as “*Melikü'l-hükema*” or “*sultânü'l-etubbâ*” (29).

The Ottoman Empire had also one chief-doctor who was assigned to work privately and specifically for the Sultan and his family (as their private family doctor). As the Minister of Health, he oversaw the official health-care associated jobs of Palace and State. He also travelled together with the Sultan during wars and onto battle fields. In addition, the prime minister, ministers and elite officers were also treated by the chief-doctor (29).

There were controversial suggestions about the formation of the chief-doctor institution. Some authors such as Adnan Adıvar and Ziya Kazıcı recorded that initially Fatih Sultan Mehmet assigned the *dersiam* (lecturer of *Dâru'ş-şifa* hospital) and chief-doctor associated with Sahn-ı Seman Madrasahs (11,22). Another widely accepted suggestion was that initially Beyazıt II started the chief-doctor institution. Süleymaniye Medical madrasah was also opened in order to educate doctors under custody of the chief-doctor (23). The first serious chief-doctor list was published during the Second Beyazıt period. Assignments and withdrawals of all doctors in the country were included within the duties of chief-doctors (29). In Topkapı Palace, there was the Chief-Doctor Room at the 4<sup>th</sup> courtyard between kiosks. Drugs and pastes for the Sultan were prepared in the tower of *chief-lala* (male servant) under supervision of the chief-doctor and his team. The tower was called “Chief-lala tower” (30). Chief-doctors of the Ottoman Empire continued their service/duties until the Sultan died. Thus, chief-doctors were in service at many madrasahs as doctors or professors before they became chief-doctors. When a sultan was deposed or dead, chief-doctors were changed/replaced (because they were unsuccessful).

The 19<sup>th</sup> century, a period of decline, brought many revolutions to the Ottoman Empire. Accordingly, the medical field had many developments. The first *Tibhâne-i Amire* (Faculty of Medicine) was opened. Then, this school moved to Galatasaray. *Mekteb-i Tıbbiye-i Adliye-i Şahane* continued its studies by the way. The institution of chief-doctor was also reorganized. Military authorization rights were transferred to *Sıhhiye Department* of *Bâb-ı Seraskeri* in 1837–38. The title of chief-doctor was transformed into title *Ser etubbâ-i şehriyâri* in 1844. Finally, Sultan Abdülaziz abolished this *Ser etubbâ-i şehriyâri* institution in 1850 (29,31).

## 2. TIPHÂNE AND CERRÂHHANE-I AMIRE (FACULTY OF MEDICINE AND SURGEONS)

During the classical era of the Ottoman Empire, medical education had established institutions. However, the newly developing medical education of Europe could not enter these madrasahs until the 19<sup>th</sup> century. Kanuni Sultan Süleyman established a medical madrasah which was a kind of "specialization madrasah" inside Süleymaniye Madrasahs (32).

Selim III was the trailblazer both at the opening of Greek Medical School in 1805 and Shipyard Medical School in Great Shipyard in Kasımpaşa in 1806 (33). These schools did not last very long and closed in a few years. Except the foundation date of 1806, there is not much valid information. However, during the period of Sultan Mahmut II, a new medical school was founded in 1826, after the abolishment of the Janissary camp. The name of the new army was *Asâkir-i Mansure-i Muhammediye* (34). Mustafa Behçet Efendi (35,36) was the chief-doctor and assigned responsibility for educating doctors in the new medical school. The Sultan declared these words upon the opening of the new medical school: "We have to educate and employ specialist (and Muslim) doctors both for our new army and for our own territories (countries). We have to translate medical science literature into our language. We must work with enthusiastic effort and labour for (Turkish) treatments" (37). So, the new army definitely needed new doctors.

Sultan Mahmut II ordered the prime minister to meet with the Chief-doctor in order to discuss the best treatment options for sick soldiers. Due to this order, the prime minister arranged a meeting in December 1826 with the following in attendance: Prime Minister (Sadrazam) Benderli Mehmet Selim Sırrı Paşa, Minister of War (Serasker) Ağa Hüseyin Paşa, Finance Minister (Defterdar) Mehmet Tahir Efendi, Expenditure Minister (Masarifat Nazır) Saib Efendi and Chief-doctor (Hekimbaşı) Mustafa Behçet Efendi (38). Their decisions were presented to the Sultan after the meeting. In the new army handbook (*Asâkir-i Mansure-i Muhammediyye Kanunnamesi*), it is written that every troop should have one doctor and one surgeon. However, it was observed that some newly assigned doctors were not competent enough. In such instances, the chief-doctor should be informed immediately (39).

Another subject was the condition of servants/nurses and their wages. How are they selected or assigned? What are their duties? They concluded that servants/nurses should receive "30 kuruş (currency unit) per month". However, most of those servants/nurses fled away after some time later. There were some oar-slaves in Great Shipyard. Ten or twelve of those slaves were

selected and promised freedom after a year of community service/duty in hospital. So, they became volunteer servants/nurses. Other free (non-slave) nurses received some increase in wages and therefore stayed in the army hospital (40).

Another decision of the meeting was that a Faculty of Medicine (*Tiphâne*) must be founded, because the newly formed *Asâkir-i Mansure-i Muhammediye* army needed good doctors. Thus, good medical education in a quality school was imperative (33).

On discussion of the location of the new medical school, they concluded that "temporarily *Tulumbacıbaşı Konağı...*" would be selected (40). After the approval of the Sultan, Chief-doctor (*Hekimbaşı*) Mustafa Behçet Efendi presented three proposals (*takrir*) to the Sultan regarding how to educate military doctors: Proposal One came from the Chief-doctor himself: "...Ottoman soldiers were being treated by old-fashioned traditional Islamic doctors who had knowledge of only old medicine. New medical methods were not known. So, Islamic doctors had to learn foreign languages as soon as possible. Thus, foreign language schools had to be opened inside medical school and medical education should be given in foreign languages. In a few years time, foreign doctors would not be needed any more for the new army (*Asakir-i Mansure-i Muhammediyye*). Our doctors had to be educated like foreign doctors." About the lectures and professors of the newly opened schools, they also concluded that: "...One professor and two teachers should be assigned for each lecture. Teachers may be non-Muslims but the professor must be Muslim. The professor should teach both Turkish and Arabic equivalents (translations) of lectures; for example: grammar, syntax, spelling-orthography, rhetoric (literary composition), pharmacy, plant-based healing, and diseases. wo non-Muslim teachers should teach the French language and surgery, i.e. How should surgeons operate? How to perform dissection? If students were successful enough, they became doctors and surgeons in hospitals (41).

Proposal Two suggests appropriate options for school locations. Temporarily, the house of the chief-fireman (*Tulumbacıbaşı*) was suitable for the new medical school (*Tıbhane-i Amire*). The house was near Acemioğlu Square where rookie soldiers were recruited and trained. According to Behçet Efendi's suggestions, foreign doctors should be replaced with Turkish doctors and a very modern institution should be founded in order to educate competent Turkish doctors. As understood from these sentences of proposal, one professor and two teachers should be present. The teachers were foreigners and came from France. The professor had to be Muslim and teach Arabic grammar, composition, herbalism and diseases. He should also translate Turkish and Arabic texts.



(*Serasker Paşa Kapısı*) and resulting decisions were delivered to the Sultan. The suggestion was included that the “Ex-fireman Building” (*Tulumbacıbaşı Sabıkının Konağı*) should become the new medical school (13). Behçet Efendi also requested authorization from the Sultan for the wages of students, professors, servants (39).

The Sultan wrote "*Hattı Humâyun*" to his prime minister (an approval notice): “*My vizier, your proposal and chief doctor’s proposal have been approached to me. Along with your and chief doctor’s proposals being appropriate to fulfill, for the moment; I am glad to know that, the subject of your declaration is arranged and the subject of patients is also in order. The patience and good deed of this is immense*” (39). These words of the Sultan indicated that doors were widely open to novel perspectives in education. He was full of appreciation for these efforts, investigations and performances. The opening of the new medical school (Tıbhâne-i Amire) was approved and the Ex-fireman building (*Tulumbacıbaşı Konağı*) was selected. It was near the Acemioğlanlar Kışlası, the former recruitment camp for janissaries, which had recently been abolished. On 14 March 1827, the new School of Medicine and Surgeons (*Tıphâne and Cerrâhhâne-i Amire*) was founded (42). Mustafa Behçet Efendi became the principal, head of professors and the charter member. Abdülhak Molla was professor. Osman Saip was head-psyhic (astrologer, fortuneteller). Other doctors were Doctor Stefan Bogos, Ahmet Hilmi, Vasif Efendi and Hüseyin Efendi (35,41,44).

“*Feast of Medicine (Doctors-day in Turkey) is still celebrated on 14<sup>th</sup> March every year; it is the anniversary of 14 March 1827 when Tıbhâne-i Amire was opened*”. The school had no entrance examinations, only volunteers were accepted. Its only aim was to educate doctors for military service in the new Mansure army. The Clerk of School was Fevzi Efendi, and his registration was sufficient for entering school and becoming students (45). At the meeting, another decision concerned the language of education. First year, only French language should be taught. Only after proficiency at French, students could go on to medicine. In the next four years, theoretical medicine should be taught in French. There were no practical lectures yet. By contrast, in western medical schools there were also practical lectures; for example, dissection in anatomy, etc.

If we consider first year graduates of Tıbhâne, there were some famous people; Aziz Bey, Fuad Paşa and Zeki Efendi. Fuad Paşa entered politics later (41). At that time, Tıbhâne school was not popular, and there was only a small number of students. Many of the graduates were intended for other fields, such as politics, etc. In order to tempt more students to the school, some precautionary measures were eliminated. For example, there was

no entrance examination. Passage to upper class status was up to the professor's decision, not an examination.

The language of education at Tıbhâne and Cerrâhhâne-i Amire was only French. First year lectures were French grammar, composition, sample texts, Arabic, knowledge of religion, Ottoman grammar, art of writing, rose garden, physics and chemistry. In the second year, lectures were knowledge of religion, zoology, anatomy, botany, French grammar, composition and sample texts. If students passed these two years with success, then the next classes were open to them. Third year lectures were preventive health knowledge, general medicine knowledge, anatomy, organ systems, and military surgery. Final year lectures were on knowledge of obstetrics, and internal and external diseases. Anatomy lectures were performed on a model, not a human cadaver. After opening of all 4-year-classes, the school became popular, and entrance examinations and class-passage proficiency examinations were begun (41).

In addition to the oversight of school principal Mustafa Behçet Efendi, Sultan Mahmut II himself payed great attention and showed personal interest in the medical school. The sultan closely followed developments and visited them from time to time. He even gave golden purse awards after examinations in order to show his appreciation. Successful students were all supported by any means. However, Sultan Mahmut II was not satisfied, and ordered the school to be expanded and enlarged. In order to provide more surgeons, one more School of Surgeons (*Cerrâhhâne*) was opened inside Topkapı Palace on 4 March 1831 (5 Şaban 1246). Expansion School consisted of three rooms next to Yıldızlı Door (35). In addition to the aforementioned lectures, major sciences of medicine were also planned, including anatomy, physiology and pharmacology lectures.

In 1833, the first senior class of Tıbhâne was opened. The latest developments in medicine were taught here. This situation was expressed in a famous newspaper (*Takvim-i Vekayi*) with these words: "This glorious class is ready to learn and teach the ultimate delicacies of positive sciences". Anatomy, physiology, pharmacology and other major sciences were supposed to be learned in this glorious class (*Sınıf-ı sâni*). In 1836, separate medical and surgeons schools (Tıbhâne and Cerrâhhâne), (45,46) were united under one school.

The establishment and incorporation dates of Tıphâne and Cerrâhhâne differs in most of the references investigated. For this reason, the dates corresponding to the opening and incorporation of Tıphâne and Cerrâhhâne are provided from two references, namely in this paper (35,45,46).

First year lectures of this united school included general knowledge, grammar etc. Second

year lectures were medical knowledge and medicine in the French language. Third year lectures included treatments, pharmacology and anatomy. For the opening ceremony of this school, many important people were invited, including the Minister of Health (*Tıbhâne-i Amire*), Chief-doctor Abdülhak Molla, Colonel (*Miralay*) Namık Bey, and professors, administrators, officers, etc. This united school had 5 rooms. The head of the school was the famous *Siddikalir*, who was a professor and administrator in Paris, Berlin and Petersburg. He came from France. He also translated the opening ceremony text of Namık Bey's speech into French (45).

However, the education language of the school was Turkish. Lecture programs included Ottoman grammar, Ottoman composition, general anatomy, surgery, causes of diseases, medical knowledge and chemistry. Only boarding students were accepted, and they could stay out only one night in a week. School required absolute discipline. Their cloths were also good in shape. In the last year of study, senior students were divided according to their abilities into two groups: Medicine class and Surgery class (47). Both medical (*tıphâne*), and surgery (*Cerrâhhane*) classes had only theoretical education. There was not any practical study in either classes. They learned the French language and French medicine, and they also studied non-medicine lectures such as Arabic, zoology, botany, etc. It was not quite possible to develop quality doctors with this system; therefore this fact was understood (45).

Soon, and a new search for education methods and renovations began. Starting from the *Tıbhâne-i Amire*, this education carried on in its path with novel developments and adaptations. In 1837, an extra building was needed for this school education. Enderun building in Galatasaray was selected, and after some refurbishment, the school moved in October 1838. For the next semester, new professors and teachers began in February 1839. The name of the school was changed to "Mekteb-i Tıbbiye-i Adliye-i Şahane"(33). The new professor was Charles Ambroisse Bernard from France. The language of education was completely French since early 1840. The duration of education was increased to six years, and then to nine years. The first four years of education were given in the high school (lycee, gymnasium) section of Mekteb-i Tıbbiye-i Adliye-i Şahane. The remaining five years of education were at university section (level) of Mekteb-i Tıbbiye-i Adliye-i Şahane.

After the great fire disaster in 1848, only the Galatasaray building was left. The new school building was moved into the Hasköy Humbarahane building. Beginning in 1865, medical education was taught there. Between 1865–1867, the school building was moved to Demirkapı (48). In 1867, a new school building was constructed in

Haydarpaşa, according to orders of Prof. Dr. R. Rieder Paşa from Germany. Education was offered in this new building, where civilian students were also accepted. *Haydarpaşa Darül-Fünun-ı Osmani Mekteb-i Tıbbiye-i Adliye-i Şahane*' was the new name of the medical school. This school played great role in westernizing and modernizing Turkish medicine since 1908/1909 (49).

In 1870, lectures were in Turkish in Mekteb-i Tıbbiye-i Adliye-i Şahane. After four years of high school (lycee), successful students continued for six years of university, ten years in total. The military medical school was moved in 1903 to a building in Haydarpaşa. A civilian medical school (*Mekteb-i Tıbbiye*) was founded in 1900 as a department of *Darülfünun-ı Şahane* (which was Istanbul University). It became an official department of Darülfünun-ı Şahane in 1909. In the bylaws of Darülfünun-ı Şahane, written in 1900, it was stated that there were a total of five departments of Darülfünun-ı Şahane. *Mekteb-i Hukuk* (Law Faculty) and *Mekteb-i Tıbbiye-i Mülkiye* (Medical Faculty) were two of the five departments of Darülfünun-ı Şahane (32).

It was decided to unite two separate civilian medical faculties, but this could cause unemployment of some professors. So, they decided to formulate a solution. Cemil Paşa, Ziya Nuri Paşa (1827–1936), Asaf Derviş Paşa (1868–1928) and Süleyman Numan Paşa assembled a meeting with the Education Minister. They persuaded him to reorganize *Mekteb-i Tıbbiye-i Mülkiye*. Civilian medical schools in Istanbul and Damascus were attached to the Ministry of Education on 25 October 1908. The State Council also approved the attachment. Another meeting was held in a building in Kadırga and the name "*Cemiyet-i Muallimin of Mülki Tıbbiye*" was changed to Faculty of Medicine as a department of *Darülfünun* (Istanbul University). Cemil Paşa was assigned as head of department. The Civilian Faculty of Medicine and military medical school were united after another council meeting on 6 December 1908. The name of the school was again officially changed, to *Darülfünun-ı Osmani Tıp Fakültesi*, on 14 September 1909. The school moved into the building of Haydarpaşa Faculty of Medicine (32).

Darülfünun was abolished and Istanbul University was founded in 1933. Medical education continued as Istanbul Faculty of Medicine. In 1945, Ankara Faculty of Medicine, in 1954 İzmir Faculty of Medicine, in 1970 Faculty of Medicine of Bursa, and in 1974 Faculty of Medicine of Edirne were founded with contributions of Istanbul Faculty of Medicine. Today, it is possible to say that all medical schools of Turkey are extensions of Istanbul Faculty of Medicine, *Tıbhâne-i Amire* and *Mekteb-i Tıbbiye-i Adliye-i Şahane* (49).

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