

English Summaries

Only a relatively small number of books belonging to the rich Arabic medical literature provide insights into the conditions of life and the professional ethics of physicians in the medieval Islamicate countries. The most important of these are protreptic, deontological, and isagogic treatises, such as al-Ruhāwī's (9th c.) *Adab al-ṭabīb*, Ibn Hindū's (10th c.) *Miftāḥ al-ṭibb*, Ṣā'īd ibn al-Ḥassān's (11th c.) *al-Tašwīq al-ṭibbī*, and Ibn Ğumay's (12th c.) *al-Maqāla al-Ṣalāḥiyya*. Collections of biographies of physicians, especially Ibn abī Uṣaybi'a's (13th c.) voluminous *Uyūn al-aḥbār*, are also highly interesting for our context. Other relevant pieces of information are found in medical handbooks, treatises on the "prophetic medicine", and books by market inspectors etc.

Part 1: Definitions

The Arabic authors often repeated and commented on classical definitions of the medical art, such as Galen's "Medicine is a profession that deals with human bodies and brings them good health." Original definitions of apophthegmatic character are rather rare. (1.1)

The medical art was commonly divided into a theoretical and a practical branch. There are several systems of subdivisions of these two parts. Ibn Sīnā divided theory into the knowledge of the "natural things", of the "necessary things", and that of causes, symptoms, and diseases. The practical branch consists of surgery and therapy with drugs and foodstuffs. A more elaborated system of subdivisions was introduced by Ibn Hindū, according to whom practice is primarily divided into the protection of health and its recovery. Another system is to be found in a text by the littérateur Ibn Ḥazm, who distinguished between the medicine of the soul and that of the body. (1.2)

The Islamic concept of "trusting in God's plan" (*tawakkul*) is, by principle, a challenge for physicians, since their efforts may be interpreted as attempts of interference in the divine plan. The Arabic authors defended the legitimacy of the medical art against such possible accusations with rational arguments as well as with quotations from Qur'an and Ḥadīth. An especially interesting rational argumentation is found in Ibn Hindūs chapter "On the importance of the profession of medicine", where he related amusing anecdotes of religious people dying because of their misconceived trust in God. Argumentations in favor of the medical art based on the Islamic tradition were often part of books dedicated to the "prophetic medicine." (1.3)

The nobility of the medical profession is a classical topos of books encouraging students of medicine. Al-Ruhāwī and Ibn Hindū dedicated special chapters of their treatises to this subject. The latter drew especially on Galen's protreptic *K. al-Ḥatt' alā l-ṣinā'āt*, where he had maintained that "medicine is the highest of all professions," since health is the highest good and basis of good deeds etc. (1.4)

Galen's eclectic theories had replaced the earlier Greek schools of medicine already in Late Antiquity. Despite the extinction of their sects, the main theories of the dogmatics, empiricists, and methodics were still known to the Arab physicians, since Galen had given detailed accounts of their opinions in his polemical refutations. These were summarized in a remarkable chapter of Ibn Hindū's *Miftāḥ al-ṭibb*. Basic knowledge of these outdated theories was also claimed by authors writing on the examination of physicians. (1.5)

Arabic theories on the emergence of the medical art are highly interesting, since they combine rationalistic elements and concepts of divine afflatus. Ibn Hindū and Ibn abī Uṣaybi'a collected in their chapters on the historical development of the profession of medicine a series of case stories and anecdotes concerned with the invention of certain therapies. Many of these were excerpted from the translations of Greek texts, especially the pseudo-Galenic commentary on Hippocrates' "Oath." Some cures were found accidentally, others follow instinctive actions of animals, while yet others are the result of dreams. The latter cases, which already occur in Greek sources, are closely connected with the concept of medical knowledge as a divine afflatus – which was by coincidence also the fundament of the prophetic medicine. Ibn Hindū firmly disapproved of such ideas. According to his rationalistic approach, medicine was not the result of inspirations, but of man's use of his mental faculties. (1.6)

The Arab physicians were undisputedly epigones of the system of humorism invented by the authors of the Hippocratic corpus and further developed by Galen. According to this canonical approach, the imbalance of humors, or dyscrasia, was thought to be the direct cause of all diseases. Health was associated with a balance of humors, or eucrasia. A concise outline of this theory was given by al-Ruhāwī in his *Adab al-ṭabīb*, where he stressed the importance of "symmetry" (*i'tidāl*), i. e., eucrasia. (1.7)

Part II: Medical Education

Protreptic and deontological treatises sometimes provide information on abilities a student of medicine should have. This occupational aptitude does – according to some authors – not only include psychological qualities, but also

certain physiognomical features, which is obviously a reflection of the ancient pseudoscience of physiognomy. Ibn Riḏwān, who was reportedly not really handsome, even wrote a refutation of such theories. The data provided by collectors of biographies, like Ibn abī Uṣaybi'a, show that students of medicine were in fact often, but not exclusively, sons of physicians. There even existed "dynasties", like that of the descendants of the Christian doctor Buḥtīšū'. (11.1)

Reconstructions of a "usual" curriculum of a student of medicine have to be based on the scattered information provided by the biographers of physicians. Although there were certainly divergences in the course of time, it is clear that the key element was always the relation between student and teacher. We can also say that the basic medical education was normally divided into a theoretical branch – viz. the reading (*qirā'a*) of canonical textbooks – and a practical apprenticeship (*ḥidma*). (11.2)

The place where teaching took place was often the private *maḡlis* ("salon") of a professor. Evidence for such gatherings dates back to the times of Ḥunayn and al-Rāzī (9th c.). The best attested *maḡlis* was that of Muhaddab al-Dīn al-Daḥwār in Damascus (13th c.), since Ibn abī Uṣaybi'a gave detailed accounts of the teaching there. Such studies were certainly in most cases subject to a charge. Some teachers reportedly denied access to their lectures to members of religious minorities. (11.3)

The famous hospitals of the capitals, such as the 'Aḏudī in Baghdad, the Maṣṣūrī in Cairo, and the Nūrī in Damascus, were obviously also to a certain degree places of medical instruction. They were in the possession of important libraries and some hospital doctors taught there, as has been proved. There is, notwithstanding that, no evidence that they were institutionalized places of education comparable to modern university clinics. (11.4)

The Arabic authors unanimously claim that the student of medicine should not only acquire theoretical knowledge from books. A practical apprenticeship (*ḥidma*) was recommended during which practical skills should be gained. Al-Ruhāwī even suggested that students should do voluntary work in pharmacies. Apprenticeships in hospitals were only mentioned by a few authors and were apparently not part of a regular curriculum. (11.5)

Following the holistic approach of Galen's claim "that the best physician has to be a philosopher", the authors of Arabic protreptic treatises urge the students to acquire knowledge of several propaedeutic disciplines, such as mathematics, logics, physics etc. Although there were certainly important philosophers and scientists among the Arab physicians, this was rather a literary topos and not a description of the actual standard medical education of this epoch. (11.6)

According to some authors, such as al-Ruhāwī, Ibn Hindū, and Ibn Ḡumay', the basic textbooks for students were the sixteen canonical books by Galen.

These were already compiled and abbreviated by members of the Late Antique medical school of Alexandria. Ibn Hindū's accounts are of particular interest, since he – respectively his teacher Ibn al-Ḥammār – criticized the selection of these books as well as the “Alexandrian Summaries” obviously often used instead of Galen's originals. Other textbooks studied, e.g. in al-Daḥwār's school, were Hippocrates' “Aphorisms” and Ibn Sīnā's *Qānūn*. (11.7)

Although we have just seen that propaedeutic disciplines were actually not part of the standard medical education, it is a well-known fact that brilliant philosophers, such as Maimonides, Averroes, and Avicenna, were also physicians. We learn from the biographical dictionaries, that many doctors had other professional skills as well – even in the field of the religious sciences. The growing importance of the latter in the post-classical era can be deduced from the fact that biographers like Ibn abī Uṣaybi'a began to replace epithets alluding to secular sciences (*falsafa*) by the religiously sanctioned title of *al-ḥakīm* (“the sage”). (11.8)

Medical specialists are often attested in the Arabic sources. The physician *par excellence* held in highest esteem was the *ṭabā'ī*, i. e., the specialist in internal medicine, literally in “physics.” Other specialists, like phlebotomists and surgeons, had obviously not obtained a classical medical education and belonged rather to the class of craftspeople. (11.9)

Examinations of physicians were not only discussed in deontological and protreptic texts, but also in treatises especially dedicated to this topic, e.g. by al-Rāzī and al-Sulamī. The latter catalogue of questions and answers even contains chapters on the examination of oculists and surgeons. Distinct examinations of phlebotomists, surgeons, and other specialists were also described in books by market inspectors. There is historical evidence that such examinations under the supervision of chief physicians or market inspectors did indeed take place occasionally. (11.10)

Part III: Exercise of Profession

Professional ethics are the main topic of Arabic deontological treatises, such as al-Ruhāwī's *Adab al-ṭabīb*. He stresses the exemplary function of doctors whose conduct of life has to be in accordance with what they expect from their patients. He and other authors also call for decent behavior and a pleasing physical appearance. The physician has to gain the patient's trust; otherwise he will not follow his instructions. Sometimes the doctor must even allow him things detrimental to the therapy in order to uphold his goodwill. The Hippocratic Oath was known to the Arabic writers and may to a certain degree have

influenced their views on professional ethics of physicians, which they developed further. A central theme in this context is the doctor's compassion, which also has its limits, like in the case of fatally ill people, whose treatment does not make sense anymore. We learn from the biographical literature that famous physicians often treated poor patients for free, which was also a postulation of the authors of deontological books. (III.A.1)

Already the ancient medical writers had pointed out that a successful physician has to have a special instinct for the anamnesis of diseases and the prognosis of their courses. Astonishing predictions and spectacular cures were of greatest interest for the Arabic biographers of physicians. Such anecdotes – which must not necessarily be authentic – are regularly to be found in these sources, e.g. Ibn abī Uṣaybi'a's *ʿUyūn al-aḥbār*. Some of these anecdotes belonging rather to the fictional literature can be traced back to Greek sources, such as the topos of the pulse of a lovesick young prince. Other well-known and amusing stories are concerned, e.g. with the revivification of seemingly dead persons or with shock treatments. (III.A.2)

Charlatans as antagonists of good physicians were also the subject of many anecdotes. Al-Ruhāwī and al-Rāzī had given detailed accounts on their greed for money and their dangerous cures. The most absurd of these were fake-operations also described in al-Ġawbarī's manual on fraudsters. Although such quacks certainly existed, the exaggerated cliché of the charlatan may occasionally be understood as an attempt of the authors to denigrate fellow-physicians. (III.A.3)

According to a classical definition of medicine, the physician has not only to restore, but also to preserve health. This means in the system of humorism that the doctor has to maintain the equilibrium of the patient's humors by prophylactically prescribing him suitable diets and a healthy way of life. The Arabic-writing physicians did usually not shy away from the therapeutical use of wine and music actually contradictory to the Islamic law. An important aspect of a healthy lifestyle was the question of the right exercise of the coitus, which was the subject of a series of special treatises. (III.A.4)

Al-Ruhāwī and others provided information on how the doctor should behave at a person's sickbed, what he should ask the patient, and how he should examine him. This anamnesis took not only place in hospitals or the private rooms of sick persons, but occasionally also in offices (*dukkān*) belonging to the physicians. (III.A.5)

The concept of interdependences between the physical and psychical conditions of patients was already elaborated in the Greek sources. Galen, for example, dealt with this topic in his treatise on "The soul's dependence on the body." It is also a well-known fact that a positive mental attitude of the patient is of

highest importance for his recovery. The Arabic writers developed these theories further; a special treatise was authored by Muẓaffar ibn Qāḍī Baʿlabakk. Accounts on manifest mental diseases and possible therapies – psychotropic drugs and shock treatments – are also to be found in the Arabic medical tradition. (III.A.6)

Arab physicians always stressed that laymen needed them for the protection of their health, since the medical art was incomprehensible without a profound education. Treatises addressed to laymen are very rare in the corpus of the Arabic medical literature. The physicians also often lamented that their cures were ineffective since the patients did not fully comply with their prescriptions out of ignorance. (III.B.1)

The best attested group of physicians is the class of personal doctors of caliphs and rulers. Anecdotes concerned with the service at court were often part of their biographies. Although many of these were certainly fictional, their entirety gives some indication of the actual relations between princes and physicians. Some doctors refused to serve at court, although the position as personal physician was very lucrative. This is not too astonishing, since there are reports of – sometimes deadly – acts of caprice of princes discontented with their doctors. It is a well-known fact that Muslim rulers often hired Christian or Jewish physicians, in whom they trusted more than in their coreligionists. Some influential personal doctors were entrusted with political offices as well; a few even served as viziers. Others were promoted to chief physicians (*raʾīs al-aṭibbāʾ*) of the capitals. (III.B.2)

The relations between doctors and their colleagues were obviously often far from being harmonical. The biographical literature contains several stories of intrigues and denigrations. To these may be added the often attested polemical refutations of treatises by contemporaries. We also hear about patients who consulted – in accordance with recommendations by some medical authors – more than one physician, which often ended up in quarrels. (III.B.3)

Physicians and druggists were members of two distinct professional groups throughout the Islamic Middle Ages. Basic knowledge of the trade in medicinal drugs was expected from doctors as well, since falsifications of medications were not uncommon. Professional ethics of druggists were sometimes part of pharmaceutical treatises, like in the case of al-Kūhīn's *Minhāġ al-dukkān*. (III.B.4)

Information on medical malpractice is only rarely to be found in the biographical sources, with the exception of cases of charlatanry. The deontological sources called on the physician to write diaries containing information on the course of the disease and their therapeutical measurements, which could serve as pieces of evidence against possible accusations of malpractice. (III.B.5)

Part IV: Coordinates and Perspectives

The Arabic medicine was undisputedly deeply rooted in the ancient Greek tradition which manifests itself in the abundance of translations of medical texts, especially by Galen and Hippocrates. This reception was not limited to technical writings, the principles of medical ethics of antiquity also survived. The Arabic authors even took interest in the historical development and the legendary origins of the Greek medicine. The deep respect for the achievements of the ancient physicians can be judged from the idealized picture of Galen drawn by Ibn abī Uṣaybi‘a, al-Ruhāwī, and Ibn Ğumay‘ – voices criticizing Galen are only seldom heard. It must, notwithstanding that, not be forgotten that the actual living conditions of the Arab physicians and the circumstances of their exercise of profession were quite different from those of their ancient colleagues. (IV.1)

As we have seen already in connection with the concept of “trusting in God’s plan” (*tawakkul*), there are possible fields of conflict between the rationalistic approach of the system of humorism and the Islamic faith. The central problem in this respect consists in discrepancies between the scientific medicine and the so-called “prophetic medicine.” The classical collections of *ḥadīṭ* contain a series of statements ascribed to Muḥammad dealing with causes of diseases and their treatment. This rather primitive system, which had his followers mainly amongst the orthodox theologians, was widely ignored by the scientific authors. It flourished especially in times of cultural decline, but it never replaced the system of humorism. The predominance of Christian and Jewish physicians in Islamicate countries was criticized especially by representatives of the orthodoxy, but occasionally also by envious Muslim colleagues. (IV.2)

The cultural decline of the Arab Orient from the 13th century onwards had also manifest effects on the science of medicine. Almost no original texts were written after this date and the occidental reception of Arabic books came to an end. Centuries before this real decline, authors of deontological treatises, namely al-Ruhāwī and Ibn Ğumay‘, had deplored the alleged decadence of the medical art in their times. Their use of this literary topos can be understood as an attempt to encourage their contemporaries to emulate the idealized ancient Greek physicians. (IV.3)