Original Article

# THE POPULARIZATION OF MEDICAL KNOWLEDGE IN OTTOMAN EGYPT, 1517-1800

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ABSTRACT

This study examines the process of disseminating medical knowledge to the non-specialist reader in Ottoman Egypt, between the sixteenth and eighteenth centuries. Through the analysis of the volumes and themes of medical literature and inheritance court records in Ottoman Egypt, this paper argues that physicians, religious scholars and others wrote and simplified medical treatises to be accessible for a non-specialist reader, and that these popularized medical treatises were indeed accessible and affordable by certain categories of non-specialist readers. In this research, the process of popularizing medical knowledge and the significance of popularized medical treatises within the framework of socio-economic, cultural and intellectual developments that took place in Ottoman Egypt between the sixteenth and eighteenth centuries.

**Keywords:** Ottoman history; history of medicine; medical knowledge; popularization; folk medicine; self-medication; Ottoman Egypt.

## INTRODUCTION

Scholarship on the history of medicine in Islamic society started to shift its focus from the biographies and achievements of famous physicians to the social aspects of medical knowledge and practice. Historians of Islamic medicine are increasingly researching topics such as Islamic hospitals, influence of the plague, folk medicine, and other topics related to the actual practice of medicine and social role of medicine. This study aims at contributing to this growing body of scholarship on the social history of Islamic medicine. It focuses on the dissemination of medical knowledge outside the scholarly circles to the non-specialist reader in Ottoman Egypt between the sixteenth and nineteenth centuries.

Physicians and religious scholars, as will be demonstrated in this study, wrote/copied short and simplified medical treatises for the use of the laymen in Ottoman Egypt. Authors and copyists identified their readership as the notables, merchants, shopkeepers and even the poor. The analysis of the quantity and content of medical literature in Ottoman Egypt asserts that simplified medical treatises were produced in large quantities and were sold at cheap prices. Although this study does not claim that the process of disseminating medical knowledge encompassed the whole society, it argues that this category of medical treatises indeed circulated amongst wider societal circles, and aims at interpreting this process of diffusing medical knowledge within its cultural and intellectual contexts.

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## Cultural and Intellectual Life in Ottoman Egypt

After the Ottoman conquest of Egypt in 1517, Egypt underwent important political changes that influenced cultural and intellectual production. Egypt was no longer the centre of the Mamluk Empire, and it got integrated into a new political entity, the Ottoman Empire, with its capital Istanbul located at a far distance. Cairo turned from an imperial capital to a provincial one. One of the most important consequences of these changes was the increasingly limited role played the state and the ruling elites in shaping the local intellectual and cultural forms and patterns in Egypt. The Ottomans followed restrained interventionist policy and did not try to Ottomanize the educational system or impose their language on the peoples of their empires. Suraiya Faroqhi argues that the Ottoman Empire was a very clear example of the co-existence of cultures in the Arab and non-Arab parts of the Empire.[1] The Ottomans' patronages of learning and construction activities were concentrated in their own capital, Istanbul. In Egypt, by contrast, the grand educational and religious institutions constructed by the Mamluks disappeared in the Ottoman era since they no longer received patronage and funding. In fact, some of these educational institutions shrank, lost their functions or simply turned into small mosques and *tekkiyyes*. Only al-Azhar mosque grew in size and became the main centre of learning under the Ottomans, yet it enjoyed considerable independence from state intervention.[2] The Ottoman elites were still the main builders of public buildings in Egypt, yet they tended to invest in small, yet practical construction projects that legitimized their rule without much cost. Many of their public buildings were either commercial such as *suqs* (markets) or small-scale *sabils-kuttabs* (public fountains built alongside elementary schools). [3]

The lack of elites' cultural patronage does not necessarily translate into the decline of cultural and intellectual life. By contrast, the cultural life of Ottoman Egypt was characterised by the diffusion of learning through different formal and informal channels. Despite the centrality of al-Azhar as an educational institution, it did not exercise any institutional monopoly over learning in Ottoman Egypt. The diffusion of learning functioned powerfully through the system of *kuttab* (elementary schools), which spread widely in Ottoman Egyptian society. In his study of elementary education in Ottoman Egypt based on *waqf* (endowments) records, Andre Raymond argued that there were about 300 public *kuttab* in Ottoman Cairo alone, and that about one thousand children finished their basic elementary education in reading, writing, calligraphy and memorizing the Quran annually. The recipients of elementary education in public *kuttabs* usually came from amongst the poor Muslims.[4] Raymond's research did not include Muslim children from the middle or upper classes, who received education through private lessons in their own houses, or Jewish and Christian schools who were educated in their own elementary schools. In *Le Description de L'Egypte*, the French savant Volvic de Chabrol suggested that an estimated one third of the population of Ottoman was literate at the end of the eighteenth century. In addition to Cairo, the *kuttab* system also spread in other Egyptian provinces and villages. The improvement of the economic conditions of middle class merchants and artisans as a result of the flourishing sugar and textile trades and industries enabled them to send their children to receive public education in *kuttabs* and even in al-Azhar. The Egyptian scholar Rifa'ah al-Tahtawi estimated that there were about 1200-1500 students at al-Azhar University.[5] Mosques in the Delta and Upper Egypt such as the mosque of Sheikh Ahmad Badawi played a major educational role by offering free instruction to people.[6] Daughters of Mamluks, rich merchants and religious scholars had male or female private tutors to teach them reading, writings and the Quran.[7]

Different types of cultural and educational activities also took place independently from educational institutions and usually centred on individual residences. It was common that scholars and '*ulama* would hold literary salons (*majalis 'ilm we adab*) in their houses where their guests recited poetry or analysed various scholarly subjects of concern to them.[8] The study of sciences also developed outside institutions. Scholars of medicine, astronomy and mathematics studied and taught sciences and conducted their own experiments in their own houses.[9] Finally, private libraries were important mediums for the diffusion of knowledge and learning. Many scholars and merchants owned private libraries. Students and other interested groups were allowed to borrow books from these libraries. The ownership of private libraries was not limited to the rich scholars and merchants, but other social groups such as middle class merchants and craftsmen possessed small libraries.[10]

The diffusion of knowledge and the spread of literacy amongst wider segments of the society led to the emergence of a category of readership, which included literate people who were not necessarily attached to an educational institution. This category of readership included small merchants, craftsmen, bureaucrats and others who had middle income. The expansion of readership in Ottoman Egypt explains the volume and types of written works produced in Ottoman Egypt. The cheap paper and sloppy handwriting used in manuscripts produced in Ottoman Egypt could be regarded as evidence that the copyists and booksellers targeted readers with middle income. Legendary tales, stories of saints or books of magic and astrology were amongst the most commonly written and copied books in Ottoman Egypt. These popular works mirrored the beliefs and tastes of ordinary non-academic readers. Writers also tended to popularise their works through adapting the style and language of their writings to be comprehensible by a non-academic reader. Scholars and writers of religious texts, for example, simplified their texts to make them accessible for ordinary people who wanted guidance on how to be good Muslims. Another important phenomenon that emerged in Ottoman Egypt as a consequence of the diffusion of learning was the increasing involvement of new categories of people, most notably artisans and shopkeepers, in the authorship of written texts. Some historical chronicles, for example, were written by authors who did not belong to the scholarly circles.[11]

Medical literature, just like other forms of literature, was influenced by these cultural and intellectual changes. Writers and copyists of medical literature increasingly aimed at diffusing medical knowledge to a wider category of readership by adapting their writings to the non-specialist readers.

## MEDICAL MANUSCRIPTS: QUANTITATIVE AND THEMATIC ANALYSIS

The investigation of the volume and themes of medical works composed in Ottoman Egypt strongly suggests an attempt to spread medical knowledge. Before evaluating the volume of medical literature produced in Ottoman Egypt, it is important to throw light on some problems facing historians' attempts to reach a correct estimate of the number of medical works in circulation during the period under study.

The medical manuscripts dated to the Ottoman period, which survive in libraries nowadays, represent only a fraction of the actual number of manuscripts in circulation in Ottoman Egypt. Unfortunately, most of the medical manuscripts written between 1550 and 1800 were lost. There were no serious attempts to preserve these manuscripts before 'Ali Mubarak (d.1893), Minister of education and public works, established the Dar al-Kutub al-Misriyah (the Egyptian National Library) in 1867. 'Ali Mubarak collected manuscripts from the mosques, schools, and *awqaf* (endowment) holdings. In the twentieth century, there were more additions to the library as Egyptian princes and intellectuals donated their private libraries to the Dar al-Kutub al-Misriyah. The library also acquired some manuscripts by purchase and from other sources. However, most of the manuscripts in private libraries, especially those owned by ordinary middle-class people, were lost after the death of their owners.

Another major problem with ascertaining the number of medical manuscripts in Ottoman Egypt has to do with the process of cataloguing these manuscripts. The catalogues of both Dar al-Kutub al-Misriyah and maktabat al-Azhar include numerous complete medical manuscripts written by anonymous or unidentified authors, yet whose date of copying were not specified. Most of these manuscripts were simply short collections of medical recipes entitled merely *kitab fi al-tibb* (book on medicine) or *risalah fi al-tibb* (treatise on medicine). This category of short and cheaply copied manuscripts was probably made by copyists in response to a demand by readership outside elitist circles. The only way to date these manuscripts is by means of a thorough examination of their content, the type of calligraphy and the kind of paper and ink used; which indicates that there is a dire need for new catalogues of medical manuscripts in both libraries. Finally, a large number of Islamic medical manuscripts are scattered in libraries all over the world, which makes it difficult to reach a correct estimate except after surveying all the catalogues of libraries which include Islamic medical manuscripts.

To calculate the number of medical works in circulation in Egypt between 1550 and 1800, I surveyed the catalogues of the Dar al-Kutub al-Misriyah, al-Azhar Library, and the Bibliothèque Nationale de France as well as the online catalogue of the National Library of Medicine.[12] There are about 78 medical titles, composed after 1550, which were in circulation in Egypt between the sixteenth and eighteenth centuries. Sixty-one of these medical titles were authored by Egyptian physicians or physicians working and living in Egypt. The rest were treatises originally in Turkish or Persian, which were translated into Arabic. It is possible to divide these medical treatises into six categories, according to their subject matter. The following table shows the number of surviving medical treatises according to subject (*Table 1*).

The above categories are not rigid. Some medical works could belong to more than one category. An attempt has been made, however, to define each category and catalogue the surviving medical titles accordingly.

Category A includes therapeutic manuals, which are medical advice literature whose authors targeted mainly the non-professional reader. This category can be subdivided into two main groups. Some of the works would include a short introduction to the theory of humours then discuss various diseases, their origins and their treatment with different remedies. *Tadhkirat ula al-albab wa al-jam' li al-'ajab al-'ujab* (The Reminder for the Intelligent and the Collection of Wonders) is an example of this type of medical advice literature. The book is divided into four main chapters. According to its author Dawud Al-Antaki, a physician who came from Antakya and practiced medicine in Syria and Egypt, the book is composed in a simplified form to address "the educated and the illiterate, the intelligent and the stupid."[13] The first chapter is an introduction to the humoral theory. The second chapter includes information on the nature of various remedies. The third chapter lists simples and the diseases they cured. The fourth chapter includes a number of diseases and their treatment. Although not a textbook, *Tadkirat Dawud al-Antaki* was directed towards the better-educated general reader. His biographer Muhammad Amin Fadl Allah al-Muhibbi d.1699 tells us that the book remained popular and widely circulated among people a hundred years after the death of his author. He added that al-Antaki summarized and further simplified his *Tadhkirat* for those "who lack enthusiasm", which again asserts physicians' desires to address the different categories of literate people.[14] The second type of medical advice literature consists of simpler collections of remedies, which only list different diseases and their cures. *Tadkirat al-Qalyubi* is written in the form of a practical health manual. It discusses diseases that attack the human body from head to toe and prescribes remedies for each disease.

Category B includes medical works that deal with only one disease, or diseases that attack only one part of the body. An example of these specialized medical works is Ahmad al-Damanhuri's *Al-Kalam al-yasir fi 'ilaj al-miq'adah wa al-bawasir*, a treatise on haemorrhoids, its causes and treatments.[15] These treatises targeted both medical practitioners such as barbers, herb sellers and the laymen, seeking a treatment for a specific malady.

The third category also includes plague tracts, which are treatises that outline the causes and remedies of the plague. Plague treatises could also be considered among specialized medical works but the importance of this subject, despite the small number of works devoted to it, indicated the necessity for a specific category. Plague treatises were written during or after outbreaks of plague and were therefore popular only at certain times.

**Table 1.** The subject- matter of medical literature authored or copied in Egypt 1517-1800*

| Category | Theme | Number of titles |
|---|---|---|
| A | Therapeutic Manuals | 33 |
| B | Specialized Remedy books | 16 |
| C | Plague Tracts | 6 |
| D | Explanatory Textbooks | 16 |
| E | Anatomy and surgery | 7 |
| F | Medical Dictionaries | 1 |

**This division of themes is based on my own analysis of the content of medical works. Criteria used for distinguishing these medical works are analyzed during the discussion of each category. For medical titles in international libraries, I relied on their summaries as provided in the catalogues. This, however, is not a reason for any major error because there are only 4 medical works which are only in international libraries and not Egyptian libraries.*

In both categories D and E, the medical works are specialist writings which addressed people with academic or professional knowledge of medicine such as students of medicine, surgeons, barbers, and other types of medical practitioners. Medical commentaries were particularly popular amongst those who studied medicine mainly as a scholarly academic subject. The commentary of the Egyptian chief al-Bimaristan al-Mansuri Madian Ibn 'abd al-Rahman al-Qawsuni on Ibn Sina's medical poem is a clear example of these commentaries. In addition, specialist works on anatomy, surgery, bleeding and cupping were produced as *aides* for those who learnt medicine through apprenticeship such as barber-surgeons.[16] One of the most important of these works is Ahmad al-Damanhuri's *Al-Qawl al-sarih fi 'ilm al-tashrih*, a treatise that simplified the basics of human anatomy to medical practitioners.[17]

The themes of the most popular medical treatises in Ottoman Egypt suggest the medical authors' or copyists to disseminate medical knowledge to laymen as well as the less educated medical practitioners, who probably formed the majority of medical healers at the time. The question, however, remains whether these medical titles were really popular. The number of surviving copies of each medical title could be interpreted as evidence of their popularity. Some medical titles such as *Tadhkirat Dawud al-Antaki* were intensively copied and survive in several copies. More interesting, however, is that some of these most popular medical manuscripts were amongst the first printed medical books, and were also published in several editions in the nineteenth century. The following table highlights the most popular medical titles based on the number of surviving copies and editions in Dar al-Kutub and al-Azhar libraries (*Table 2*).

The above figures demonstrate that therapeutic manuals were amongst the most popular medical works in Ottoman Egypt. The continued popularity of these medical titles also assert that despite the introduction of modern Western medical curriculum, the knowledge of laymen was informed by different sources of medical knowledge. Medical textbooks did not continue to be popular after the introduction of print and Westernised medical reforms. The graduates of institutionalised medical schools received Western medical education and relied on Western medical textbooks.

For any study on the production on medical manuscripts to be complete, it is important to include medieval medical titles that continued to be copied or be in circulation during the Ottoman period. About 50 medieval medical works were copied between 1550 and 1800. In the following table, the most popular medieval works copied in the Ottoman period available in both Dar al-Kutub and al-Azhar library are listed according to their themes (*Table 3*).

Medieval medical literature continued to be copied and circulated in the Ottoman period for different reasons. Most of these titles were used as textbooks, especially Ibn al-Nafis' commentary on Ibn Sina's

**Table 2.** A List of the most Popular Medical Works authored in Egypt from 1550-1800*

| Medical titles | Type of Medical literature | Number of Copies (from 1550–1800) | Editions |
|---|---|---|---|
| *Tadhkirat Dawud al-Antaki* | Therapeutic manual | 16 | 9 editions |
| *Al-Nuzha al-Mubhijah fi tashhidh al-azhan* by Dawud al-Antaki | Textbook | 14 | 4 editions |
| *Al-masabih al-saniyah fi al-tibb* | Therapeutic manual | 10 | Not published |
| *Mukhtasr al-Swaidi* | Therapeutic manual | 9 | 10 editions |
| *Tadkirat al-Qaluybi* | Therapeutic manual | 5 | 3 editions |
| *Sharh al-asbab wa al-'alamat* by al-Qawsuni | Textbook | 3 | Not published |
| *Al-Qawl al-anis* by al-Qawsuni | Textbook | 3 | Not published |

**This information is preserved under the section tibb in the al-Azhar catalogue published in 1950.*

*al-Qanun* entitled *Mujiz al-qanun*. The eighteenth-century Sheikh Ahmad al-Damanhuri (d.1778) lists the commentary as one of the textbooks he studied in al-Bimaristan al-Mansuri.[18] *Minhaj al-Dukkan* was another widely read work composed by Dawud al-Kuhain al-Israili al-'Attar on both compound and simple medicines. It was specifically written for pharmacists and includes detailed information on weights and units of measurement.[19] The book, as will be shown later, also reached the lay reader because of its reliance on popular Egyptian names of drugs, which made it accessible to all types of readers. In addition, some medieval medical titles were popular for other reasons. *Tuhfat al-'Arus*, a medieval book of sexual advice, was popular among readers in the Ottoman period. As will be seen later, *Tuhfat al-'Arus* and other sexual advice works were commonly found in private libraries in the Ottoman period.

The process of composing and copying medical literature in Ottoman Egypt was selective. The primary target of this process was the non-specialist reader. The majority of the medical works composed between the sixteenth and eighteenth centuries (therapeutic manuals, specialized remedy books and plague tracts) targeted mainly the non-specialist reader. On the other hand, the majority of medieval medical books copied in Ottoman Egypt were probably used as textbooks. Certain medieval titles, as shown above, were popular amongst ordinary readers, either because of their subject-matter (sexual advice literature, for example) or because of their easily-understood language and accessibility to different categories of medical practitioners.

## The Prices of Medical Manuscripts

The question of the prices of medical works is central to this research. If medical literature, as shown above, targeted the non specialist middle class reader, then medical treatises should be affordable. In the West, the popularization of medical knowledge was closely linked to the invention of the printing which made large numbers of publications available at low prices. Although printing was not introduced to Egypt until the nineteenth century, the printing revolution in Europe had had an indirect influence on the prices of books in Egypt. Printing and the increasing demand for books led to the production of cheaper types of paper in the west, and consequently, lowered the price of paper imported into Egypt.[20] In her study of the culture of the middle class in Ottoman Egypt, Nelly Hanna explains that the prices of imported paper in the sixteenth century were lower than they had been in the preceding century, which, in consequence, influenced the prices of books, making them cheaper and more accessible to the lower middle classes. Besides the reduced prices of paper, Hanna referred to the copyists' use of different techniques in order to make multiple copies in a short time to meet the demands of the general reader, which explains the poor quality and calligraphy of many manuscripts that date to the Ottoman period.

The process of producing medical works was no exception. The evidence from court records asserts that medical works were sold at lower prices. In a court case, 18 medical books were sold at 50 nisfs, i.e the average price of a medical treatise about 2.5 *nisfs* (the nisf is equal to one bara and 40 baras is equal to one piaster). The inheritance records could provide important information on the prices of medical treatises and books. Unfortunately, it has not been possible to determine the change in the prices of medical books between the sixteenth and eighteenth centuries. Court records provide the approximate prices of medical books without any details of their sizes or finishing style; this made it difficult to compare prices. For example, *Tadhkirat Dawud al-Antaki* was sold at between 110 nisfs and 300 nisfs. The price of *Mukhtasr al-Swaidi* ranged between 30 and 40 *nisfs*.

**Table 3.** A List of the Most Popular Medieval Medical Works copied in Egypt, 1500-1800

| Medical title | Type of medical title | Number of copies |
|---|---|---|
| *Mujiz al-qanun* | Textbook | 9 |
| *Tuhfat al-'Arus* | Sexual advice literature | 6 |
| *Sharh al-asbab wa al-'alamat* | Textbook | 6 |
| *Minhaj al-dukkan* | Pharmacology | 4 |
| *Mufradat ibn al-Baytar* | Pharmacology | 3 |
| *Ma la yas' al-tabib Jalihih* | Textbook | 3 |

*Minhaj al-Dukkan fi al-tibb* was sold at 84 *nisfs* while a summary of the same book came to 10 *nisfs*. A summary of *al-Hawi* by al-Razi ranged between five and 15 *nisfs*. *Mufraddat ibn al-Baytar* was sold at about one piaster. The cheapest medical works, however, were anonymous collections of medical recipes. The price of a *risalah fi al-tibb* was between five and 15 *nisfs*. A *kitab fi al-tibb* ranged between 10 *nisfs* and half a piaster.

The question that should be considered next is whether popularised medical treatises could reach its targeted readership. Inheritance records, which detail the inventory (including books) of dead people, could be regarded as important source of information on the composition of readership of medical literature in Ottoman Egypt. The picture that emerges from inheritance records' analysis suggests that medical literature could reach social groups including merchants, craftsmen, urban middle-class dwellers, bureaucrats and middle-ranking 'ulama, in addition to popular medical healers such as barbers and spice sellers etc.

## Readership

Inheritance records represent an ideal primary source of information on the socio-economic backgrounds of the owners of books in Ottoman Egypt. Inheritance records are documents dealing with legal cases and inheritance problems following someone's death. These legal cases were dealt with in the courts of *Qisma 'Arabiyah* ( courts dealing with the inheritance records of the civilian population) and *Qisma 'Askariyah* ( courts dealing with the inheritance records of military people, *odjaks* and people who received salaries from the government). There are important considerations that we should keep in mind when using inheritance records as historical sources. Firstly, these records deal only with the inventories of dead people when there was a dispute over the inheritance, and thus these records document only a sample of the population. Secondly, not all social categories are equally represented in these sources; middle social classes such as craftsmen were clearly underrepresented.[21] Finally, the inheritance records sometimes don't identify in details. In many cases when the deceased person had left books, the records did not mention their subject matter. In this study, the inheritance records will not be used as source for information on the numbers of people who owned medical books, but on the socio-economic and professional backgrounds of the owners of medical books.

Medical practitioners were naturally amongst those most concerned with owning medical books. Medical practitioners learnt medicine through different ways; some learnt medicine as a skilled craft mainly through apprenticeship, others learnt medicine as a scholarly discipline through books. Inheritance records assert that medical practitioners from different backgrounds were keen on owning medical books, which they probably used in their practice. According to the inheritance record of Abd al-Rahman al-Shami al-hakim, who worked as a physician, the deceased owned 18 small books on medicine worth 50 nisfs.[22] Other practitioners such as spice sellers also had books on medicine. For example, Sheikh Yussef al-Ayuti, a spice seller in al-Fahhamin, showed that he had two books on medicine in his library.[23] Similarly Sheikh Muhammad ibn Sulaim, a small merchant in the *suq al-sharab* (market for selling drinks, including medical syrups), had in his library a copy of Abu Dawud al-Israili's *Minhaj al-Dukkan fi al-tibb*.[24]

The analysis of inheritance records also demonstrates that the 'ulama constituted a significant section of medical books' owners. The Shafi' scholar Sheikh Mansur al-Tablawi owned several books in medicine, pharmacy and magic. Another significant religious scholar Sheikh Muhammad al-Tilmsani left several medical books including a book on prophetic medicine. Sheikh Alam ibn Barakat, a judge owned a group of medical treatises worth 45 nisfs. Many middle-ranking 'ulama also were keen on owning books. For example, Sheikh Zain al-din Abd al-Rahman, a *khatib* (preacher) in a mosque in Bulaq, owned several medical treatises.[25] A certain sheikh 'Abd al-Ghaffar owned a small book of medicine entitled *al-rahmah fi al-tibb* (probably same book mentioned earlier in this study). The diffusion of medical knowledge amongst middle-ranking religious scholars is significant in itself. This category of '*ulama*, who worked as preachers, teachers in *kuttabs* or imams in small mosques occupied positions that enabled them to maintain direct relations with the population and to make them the social leaders of their communities. As the middle ranking 'ulama represent the most learnt members of their communities, people usually resorted to them for advice on different matters including health-related issues. Their possession of medical texts meant further propagation

of medical knowledge. This situation was similar in many ways to early modern European societies. Robert Heller argues that rural priests were the main agents in the government's plans to reform medicine in eighteenth-century France because people usually resorted to priests in medical matters. Therefore, some popularized medical works such as *Le médecin charitable* and *L'apothecaire charitable* were written mainly for the use of the clergy and charitable communities.[26]

Finally, evidence from inheritance records asserts that popularised medical texts could indeed reach non-professional readers such as merchants, craftsmen, bureaucrats and other middle ranking urban dwellers. Many members of this category of readers belonged to the middle classes who left behind them moderate inheritances between 5000 and 35,000 nisfs. The low prices of these books and the improved socio-economic conditions of the middle classes enabled them to purchase medical books. Khawaja Abu Al-Hassan al-Marmari, a middle class merchant, who left an inheritance of 25,397 *baras*, left eight books on medicine priced at 340 *nisfs*.[27] A certain head of merchants in *suq al-fahamin* also owned several books on medicine. Muhammad effendi, a bureaucrat working in bab al-shi'riyah court, left a small treatise on medicine worth 15 nisfs, while another bureaucrat named 'Abd al-Karim owned treatises on both magic and medicine.[28] Some craftsmen just as Sulayman Ibn Umar al-Maghribi al-hirfi also owned small books on medicine.[29]

Inheritance record did indeed show that several social groups were capable of owning medical books in the Ottoman period. Questions however remain as to whether these owners of medical books actually used them. It is difficult to answer these questions in the absence of enough evidence, yet it is possible to speculate on the basis of the economic background of a specific medical books' owner and the types of books he owned whether he actually used these books or not. The economic background of a specific owner might indicate whether the book is used or not. Although it was common for pre-modern princes and rich people to own books as evidence of their patronage and respect for learning, readers from moderate economic backgrounds, probably did not have enough means to purchase books only for the purposes of displaying them. The analysis of private libraries provides us with important information on the preferences of the owners of medical books, which could indicate the reasons for choosing these books. Collections of medical recipes were the most common books found in libraries. This means that many people bought books which they could actually use. Many owners of medical books also had books on magic and astrology (both were important sources of pre-modern pluralistic medical knowledge), reflecting their own understandings of illness and cure.

## REASONS FOR THE POPULARIZATION OF MEDICAL KNOWLEDGE

Depending on their career backgrounds, authors of medical literature had different purposes for writing popularised medical books. Many physicians' explicit goal for diffusing medical knowledge was their interest in the reform of medical practice. A certain eighteenth-century Ahmad Dahman, who claimed to have learnt medieval Islamic medicine and Frankish (European) medicine during his trips in Turkey, claimed that he wrote a treatise on medicine to warn people from mal medical practices. He explained "I found people praising ignorant physicians. One said that he saw a *tabib* (physician) treating a broken tooth by replacing the tooth with the peel of a pumpkin. Another said that he saw a *tabib* treating a broken leg by replacing the broken bone with a dog's bone." Dahman also believed that learnt physicians should not hide important medical information that could help people protect their health. He justified his view by arguing that Hippocrates said, when blamed by some ignorant people for revealing the secrets of medicine, that physicians should reveal the secrets of the medical art because of people's need in the absence of skilled physicians."[30]

In other cases the competition between physicians might explain their need for diffusing medical knowledge. In his *Tadhkirat*, Dawud al-Antaki claimed that he was persuaded to write popularised medical texts because of the Jewish domination of medical practice in Egypt to the extent that "the *faqih*, the reference in religious matters, walks until he lets a Jew heal him." Al-Antaki thus decided to make medicine, just like other sciences, available to all Muslims. This case, however, could be regarded as rare. The vast majority of physicians and other practitioners were organised in guilds, which included professionals from different religions.[31]

The religious scholars (‘*ulama*) contributed to the diffusion of medical knowledge. Some authored popularised medical treatises themselves considering this as an act of piety. In his *Risalat tartib al-‘ulum*, an eighteenth-century text on the classification of sciences, Sheikh Muhammad Al-Mar‘ashy stressed the importance of rational sciences. The author defined *‘ilm* as all sciences that create happiness in this life and the after-life. Al-Mar‘ashy asserted that the usefulness of science is an important criteria for determining its religious legitimacy. It is on this basis that al-Mar‘ashy concluded that the study and practice of medicine as a *fard kifaya*, particularly in areas struck by the plague. He encouraged all Muslims to own a book on medicine such as *Tadhkirat Dawud al-Antaki* to be capable of healing himself instead of surrendering himself to an ignorant physician. He also found it mandatory that all practitioners should own books on anatomy, especially the writings of Ibn Sina and al-Razi, as a means to explore God’s wisdom and to master their crafts.[32]

Some religious scholars composed popularized medical works to encounter some beliefs that a Muslim should accept disease as his fate. Sheikh Muhammad Ibn ‘abd-Allah al-Azhari al-Jawhari warned his readers from ignorant barbers and others who practiced bloodletting and cupping claiming that they could treat people. He also attacked some people who claimed that a disease was a test of a man’s patience and encouraged Muslims to follow the footsteps of the Companions of the Prophet, who took care of their health by being moderate in their food, drink and sexual relations.[33]

The readers/patients’ reasons for purchasing popularised medical works must be interpreted in the light of pre-modern understandings of health and disease. For people in pre-modern societies, death and disease were part of everyday life. Thousands of people died as victims of plague, smallpox infections and many other diseases. In pre-modern Egypt, as was the case in pre-modern Europe, patients usually resorted to self-medication. Self-medication could be partly attributed to the shortage of medical services and the relatively high cost of some medical practitioners.

Although hospitals such as al-Bimaristan al-Mansuri were established in big cities, the hospitals’ services were usually restricted to the poorest members of the society. The seventeenth-century traveller Eviliya Chelebi told us that insane patients had to receive a permit from the local governor to make sure they were really poor and needed the hospital’s free medical services.[34] The limited medical services alone can not explain people’s resort to self medication. Roy Porter argues that although people could have received cheap services from barbers, bonesetters and midwives, many people preferred to treat themselves. He explained that the theory of humours was popular amongst both learnt physicians and lay persons. Thus, pre-modern doctors lacked the specific technological expertise that distinguishes them now, and thus many people believed that they were capable of identifying and treating their own diseases.[35] The French physician Royeur recounted that Egyptians usually would go to herbalists to get the herbs they need to prepare the medicines for themselves in their own homes and did not consult doctors except in serious cases. Royeur also pointed to the spread of simple medical treatises among Egyptians, which enabled them to rely on simple remedies for their own treatment.[36]

## THE SIGNIFICANCE OF POPULARIZED MEDICAL LITERATURE

The significance of popularized medical literature and its survival lies in its ability to reflect common medical attitudes and practices without enforcing innovations on people or showing contempt for folk medical culture. By encompassing multiple sources of medical knowledge, popularized medical literature reflected people’s various interpretations of disease.

In pre-modern societies, people developed different physical, religious and spiritual definitions of disease. The most common physical explanation of disease among both physicians and people was based on Galenic humoral theory. Disease was seen as an imbalance in the internal humors of the body. People were advised to pay attention to their lifestyles by observing the six non-naturals: air, food and drink, motion and rest, sleep and waking, retention and evacuation, and the passions of the soul. There were various methods for treating disease: bleeding, purging, cupping, and starvation diet as well as a number of complex and simple drugs. However, people developed other religious and spiritual understandings of disease. Muslims, for example, had a strong belief in the evil eye and its influence on humans causing them misfortune or long-term disease. The plague, an incurable disease causing huge numbers of deaths, triggered different physical and religious explanations.

The most popular explanation of the plague was the *jinn* who pierced Muslims, and that good Muslims who died because of plague were martyrs.[37]

In pre-modern Egypt, popularized medical literature embraced these different understandings of health and disease. In his *Tadhkirat al-Qalyubi*, Sheikh Shihab al-din al-Qalyubi, a religious scholar discussed the remedies for each disease as suggested by Galen and medieval Arab physicians (learnt Greco-medicine), alongside magical and popular remedies. For example, al-Qalyubi suggested that a man suffering from colic could waken up a sleeping dog and urinate in its place then the patient will be cured and the dog would die. An ophthalmia patient could be cured by putting the fat of a deer on his eyes as the patient would see the jinn and then he could order them to cure him.[38] Sheikh Ahmad Al-Damanhuri, a religious scholar, advised that people stung by scorpions should keep calling the name of the Prophet while drinking water with salt dissolved in it, and the sting will be cured.[39]

The use of amulets and talismans as medical cures were accepted in the writings of religious scholars and physicians. To protect a house from the plague, authors prescribed the use of amulets. Sheikh al-Qalyubi advised his readers to read a verse of the Quran and carry the following amulet, which includes four names of God (*Figure 1*).


**Figure 1.** Amulet recommended by Sheikh al-Qalyubi to protect houses from plague

Amulets were used to treat other diseases. In *Dhayl tadhkirat Dawud*, attributed to a pupil of Dawud al-Antaki, (an anonymous physician), the author recommended that his readers should write an amulet on a Tuesday and put it on the patient, who suffers from pain in his spleen (*Figure 2*).[40]

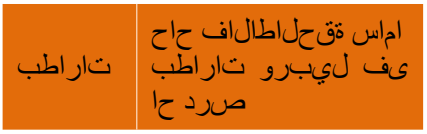


**Figure 2.** Amulet recommended as a treatment for the treatment of spleen diseases

Sometimes, amulets were used as treatments for lovesickness, which was regarded then as a disease, because of their importance to their readers. Dawud Al-Antaki advised a lover to burn his nails, mix the ashes with honey and feed them to his beloved to keep her love. If a woman refuses the love of her lover, then he has to mix his sperm with his blood and put them in a bowl made of lead. After 21 days, he would find worms that he should kill and use their blood to write two amulets.

Another important reason for the popularity of therapeutic manuals was their inclusion of successful folk remedies, traditionally used by Egyptians. In his *Tadhkirat,* Dawud al-Antaki he hailed the use of *nidah*, a kind of sweet made of flour that was used to increase weight, and for treatment of madness and chest pains. He also tells his readers about how Egyptian women used ceruse (white lead) for the treatment of bad smells.[41]

The acceptance of folk and magical remedies was common in the popular writings of physicians and religious scholars. Authors of therapeutic manuals understood that their target, the ordinary patient, was seeking successful treatment regardless of its source. This probably explains the popularity of therapeutic manuals because of their success in addressing readers from various educational and social backgrounds.

## CONCLUSION

The idea for this study came from the large number of medical works composed in Ottoman Egypt by different authors: physicians, religious scholars and even anonymous people. The importance of these works is that they were addressed to the ordinary reader. Authors specified their readership as “people,” “merchants,” “shopkeepers,” and “the poor.”

In this study, an attempt has been made to show that these medical works became a medium for the diffusion of medical knowledge to the public. In order to interpret the process of popularizing medical knowledge, this study evaluated the quantity, subject matter as well as the prices of medical works produced in Ottoman Egypt. The conclusion reached is that the majority of medical works were written in the form of therapeutic manuals and plague tracts, which addressed non-specialist readers, and were sold at very low prices.

Secondly, the study assessed the readership of this literature in the light of inheritance court records. It was possible to prove that medical literature, although it could not reach the poor as hoped by the authors, could reach various social groups among the upper and middle classes.

The study also pointed to different motives for disseminating medical knowledge. Special attention was paid to the role of religion, which encourages people to acquire and practice medicine as well as to own medical books so they could be referred to as needed.

In conclusion: the diffusion of medical knowledge should not be regarded as a war of rationality launched by physicians or orthodox scholars against magic and folk practices. Rather, popularized medical works reflected a larger and more open medical world in which different sources of medical knowledge ranging from learned Galenic and chemical physicians to the patient himself, existed and were used interchangeably by the people. It was the ability of medical literature to reflect people's various definitions of disease and health and to harmonize various sources of medical knowledge, which led to the growth and survival of popularized medical literature.

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