AUTOBIOGRAPHY OF QUṬB AL-DIN SHĪRĀZĪ
(A PERSIAN PHYSICIAN IN 14TH CENTURY AD)
IN HIS MANUSCRIPT, AL-TUḤFA AL-SAʿDĪYA

Summary

Quṭb al-Din Shirāzī (1236-1311 AD), the Persian polymath had great contributions to the fields of philosophy, mathematics, medicine, astronomy, music, literature, and Islamic studies. He lived during the Ilkhanid kingdom in Iran. He wrote an autobiography in the preface of his medical manuscript, al-Tuḥfa al-Saʿdiya. He discussed his views on science and then, he explained his life story, in particular his education and contribution to science. He mentioned the reasons that led him to write al-Tuḥfa al-Saʿdiya, his main medical work. As a great polymath, he traveled to many countries, and his words cleared the scientific atmosphere of 14th century AD. Also, he directly introduced his teachers and their abilities and works. Furthermore, scientists who worked on the Canon of Medicine had commentaries on this book, which were comprehensively introduced in this autobiography.

Keywords: Persian medicine, History of medicine, Medical biography, Medieval era

* Department of Arabic Language and Literature, The School of Foreign Languages, Imam Sadiq University, Tehran. ORCID ID: 0000-0003-2236-350X.
** Department of History of Medicine, School of Persian Medicine, Tehran University of Medical Sciences, Tehran, Iran. ORCID ID: 0000-0003-4351-3861.
Correspondence Address: Arman Zargaran, PharmD, PhD, Department of History of Medicine, School of Persian Medicine, West Jamali Alley, Vafamanesh St., Heravi Sq., Tehran, Iran; Postal Code: 1668753881. E-mail: azargaran@sina.tums.ac.ir.
Introduction

Persian medicine (PM), which is an old paradigm of medicine based on humoral theory, dates back to several thousand years ago\textsuperscript{1,2}. In the early Islamic era (9-12\textsuperscript{th} century AD, called Islamic Golden Age), Persian physicians flourished in medical sciences and formed a global paradigm of medicine based on four elements while their books, like *Canon of Medicine* written by Avicenna (980-1037AD), became the main medical textbooks in the western universities until 17\textsuperscript{th} century AD\textsuperscript{3}. Later, with the attack of the Mongols (north of China) on Persia and then on all Islamic territories, the scientific movement was stopped during the terrible invasion and massacre. Cities, schools, libraries, and many scientists were defeated and murdered\textsuperscript{4}. With the fall of the Kharazmshahian kingdom in Iran by the Mongols, they founded their king-

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{figure1.png}
\caption{The statue of Quṭb al-Din Shirāzī, Zinat al-Molūk House, Fras fame museum, Shiraz.}
\end{figure}

\textsuperscript{1} Zargaran, Arman (2014), Ancient Persian medical views on the heart and blood in the Sassanid era (224-637 AD), *International Journal of Cardiology*, 172 (2), 307-312.
\textsuperscript{2} Tadjbakhsh, Hassan (2000), *History of Veterinary medicine and medicine of Iran, Vol. 1*, Tehran; University of Tehran Press.
\textsuperscript{3} Kordafshari, Gholamreza, Kenari, Hoorieh Mohammadi, Esfahani, Mohammad Mehdi, ShamsArdakani, Mohammad Reza, Keshavarz, Mansoor, Nazem, Esmaeil, Moghimi, Maryam, Zargaran, Arman (2015), Nutritional aspects to prevent heart diseases in traditional Persian medicine, *Journal of Evidenced Based Complementary and Alternative Medicine*, 20(1), 57-64.
\textsuperscript{4} Ramezany, Farid, Shams Ardakani, Mohammad Reza (2011), Ali ibn Hosein Ansari (1330-1404): a Persian pharmacist and his pharmacopoeia, *Ekhtiyarat i Badi I, Journal of Medical Biography*, 19 (2), 80-83.
dom (Ilkhanid dynasty, 1256-1335 AD) in Persia. During this period, the scientific movement started to reform again with the help of Persian scholars and scientists like Naṣīr al-Dīn Tūsī (died 1274 AD) as the minister of Hülegü Khan (1217-1265 AD). Many great schools like Ġabi Rashidi (Rashidi Quarters), as well as scientists, physicians, and polymaths such as Naṣīr al-Dīn ‘Ali Dabiran Katebi (died 1277 AD), Athīr al-Dīn al-Abhari (died 1265 AD), Khajeh Rashid al-Dīn Fazlollah Hamadani (1247-1318 AD), al-Allamah al-Hilli (1250-1325 AD), etc. were created and raised.

Another main figure as physician and polymath in this era was Qūṭb al-Dīn Shirāzī (also known as ‘Allāma Shirāzī, al-Shāre‘ al-‘Allāma, and Mollā Qūṭb and nicknamed Abūl-Ṭanā‘). He had an autobiography in one of his books, al-Tuḥfa al-Sa‘diya.

The term autobiography or self-writing of the accounts of life by a person was first created by William Taylor in 1797. However, this type of writings has a deeper root in history. “Confessions” of Augustine (354-430) are considered to be the earliest western autobiographies left, and there are many such documents in the east and the west, in particular after the medieval era. Nevertheless, the writing of autobiographies was not too popular among Persian scientists in the ancient and medieval eras. The first reported one belongs to Borzouyeh (Persæ in Latin), a Persian physician in the Sassanid kingdom (224-637 AD). Also, Avicenna is another example. He had a short

---

5 Şahin, Hanifi (2015), The conversion of Ghazan Khan to Islam and its reflections on Ilkhanid society according to Jāmi al-Tawārîkh, Bilig, 73, 207-230.
6 Naṣīr al-Dīn al-Tūsī (2017), in: Encyclopedia Britannica, https://www.britannica.com/biography/Nasir-al-Din-al-Tusi (accessed: 8 December 2017).
7 Abbasnejad, Feridoon, Shoja, Mohammadali M., Agutter, Paul S., Alakbarli, Farid, Loukas, Marios, Shokouhi, Ghaffar, Khalili, Majid, Tubbs, R. Shane (2012), Rashidi Quarters: a late thirteen to early fourteenth century Middle Eastern Medical School, Childs Nervous System, 28 (11), 1823-1830.
8 Mulyadi, Sukidi (2009), Al-Hilli, in: Oxford bibliographies, http://www.oxfordbibliographies.com/view/document/obo-9780195390155/obo-9780195390155-0032.xml (accessed: 8 December 2017).
9 Anawati, Georges Chehata (1982), Abhari, Atīr-Al-Dīn, in: Encyclopaedia Iranica, Vol. I/2, http://www.iranicaonline.org/articles/abhari-samarqandi-air-al-din-d-1264-logician-mathematician-and-astronomer (accessed: 8 December 2017).
10 Mohaghegh, Mehdi (1978). Al-Kātibī, Najm al-Dīn Abūl-Ḥasan ‘Alī b. Ṭūsī, in: van Donzel, Émile J. et al. (ed.), The Encyclopaedia of Islam, Leiden; Brill, 762a–b.
11 Nadim, Mostafa, Farjam, Mojtaba (2016), Qūṭb al-Dīn Shirāzī (1236-1311), Persian polymath physician in the medieval period, Journal of Medical Biography, 24 (3), 360-362.
12 Good, James M. (1981), William Taylor, Robert Southey, and the Word “Autobiography”, The Wordsworth Circle, 12 (2), 125.
13 Taylor, Chole (2009), The Culture of Confession from Augustine to Foucault, New York: Routledge.
14 Zargaran, Arman, Mehdizadeh, Alireza, Yarmohammadi, Hassan, Kiani, Hassan, Mohagheghzadeh, Abdolali (2015), Borzouyeh, an ancient Persian physician who first reported uterine contractions in normal vaginal delivery, Acta Medico Historica Adriatica, 13 (2), 23-28.
autobiography reported by his pupil, Juzjani. Quṭb al-Dīn Shīrāzī (Fig. 1) is another scientist-philosopher who had a comprehensive autobiography in his manuscript. In this paper, the aim is to introduce this autobiography by translating it from Arabic to English. The original version of “Al-Tuḥfa al-Sā’dīya”, written and copied in 1326 and kept in the Majlis Shura Library (MS no. 1177), was used for this translation.

**QUṬB AL-DĪN SHĪRĀZĪ AND HIS WORKS**

Quṭb al-Dīn was born in Shiraz, south of Persia in 1236AD, and died and was buried in Tabriz in 1311 (Fig. 2). He was a polymath and had many manuscripts in the fields of philosophy, mathematics, medicine, astronomy, music, literature, and Islamic studies. He was mainly famous for his contributions to astronomy and philosophy. He also had important works in the field of medical sciences like Resaleh fi Bayan al-Haja ela al-Teb va Adab al-Atebbah va Vasayehom [a manuscript on medical ethics], and Resala fi al-Baras [treaties on Vitiligo]. His great medical text isal-Tuḥfa al-Sa’dīya, a commentary on the first volume of the Canon of Medicine (written by Avicenna in 1025AD). Quṭb al-Dīn presented an autobiography in the preface of this book.

**AL-TUḤFA AL-SA’DĪYA**

This book was a commentary on the book of *Canon of Medicine*. Quṭb al-Dīn discussed Avicenna’s theories and criticized other commentaries written on the *Canon*. It was a comprehensive book and became the reference book for this subject by scientists who worked on Avicenna’s works. Quṭb

---

15 Bertolacci, Amos (2001), From al-Kindi to al-Farabi: Avicenna’s Progressive Knowledge of Aristotle’s Metaphysics according to his Autobiography, *Arabic Sciences and Philosophy*, 11 (2), 257-295.

16 Pourjavady, Reza, Schmidtke, Sabine (2009), Quṭb al-Dīn al-Shīrāzī (D. 710/1311) as a Teacher: An analysis of his Ijāzāt (studies on Quṭb al-Dīn al-Shīrāzī III), *Journal Asiatique*, 297 (1), 15-55.

17 Lane, George (2012), Mongol News: The Akhbār-i Moghulān dar Anbāneh Quṭb by Qut.b al-Dīn Mah.mūd ibn Mas‘ūd Shīrāzī, *Journal of the Royal Asiatic Society*, 22 (3-4), 541-559.

18 Hajiha, Abbas (2008), Quṭb al-Dīn al-Shīrāzī and his opinions and works, *Peiš Noor*, 6 (4), 171-190.

19 Enjoo, Seyyed Ali, Mosavat, Seyyed Hamdollah, Heydari, Mojtaba (2014), Medical Ethics in Iranian Traditional Medicine, a Review of Quṭb al-Dīn al-Shīrāzī’s Ethical Code, *Journal of Research on History of Medicine*, 3(3), 113-122.

20 Mimura, Taro (2013), Quṭb al-Dīn al-Shīrāzī’s Medical Work, al-Tuḥfa al-Sa’dīya (Commentary on volume 1 of Ibn Sīnā’s al-Qānūn fī al-Tibb) and its Sources, *Tārikh-e Elm*, 10 (2), 1-13.

21 Mohaghegh, Mehdi (2013), Quṭb al-Dīn al-Shirazi and his autobiography, *Isra Hikmat*, 5 (15), 171-176.
al-Din was a polymath and therefore discussed comprehensively the subjects based on his wide views and knowledge in different branches of sciences\textsuperscript{22}.

**Autobiographi of Quṭb Al-Din Shīrāzī**

Quṭb al-Din wrote his autobiography in the preface to his manuscript, *al-Tuḥfa al-Sa'diya* (Fig. 3). He initially discusses the importance of knowledge and science. Then, he described his contribution and interest in science, his meetings with scientists, and his efforts to discover unknown issues. He went on to indicate that medicine is the most important field of science and its benefits are greater than others, because the subject is the human body, as the most important creature. Also, medicine produces the things which human needs everywhere and forever. Furthermore, Quṭb al-Din believed that the methods of medicine were based on both experiment and proof. Therefore, he concluded that it is obvious to all nations and religions that medicine is the most important field of science. He continued his discussion with some of the prophets, holy men, and scientists’ words on the importance of medicine. Afterward, he started his autobiography:

“I belong to a family who was famous in medicine and even more because they succeeded in treatment and temperament correction, Jesus-like breathes and Moses-like hands. I was eager to learn medicine when I was very young. I forced myself to observe vigil and prevent myself from sleeping since I learned and investigated famous brief books of medicine and observed and researched common treatments and trained myself in any medical-related issues like ophthalmology and manipulation, e.g., venesection, al-Sall, al-Tashmir [ophthalmic surgical procedures], Laght al-Zofrah [treatment of pterygium] and al-Sabal [conjunctivitis], etc., except Ghadh [cataract operation], while our family never trained in them. All the matters were under the supervision and guidance of my father, Zia’ al-Din Masoud ibn Mosleh Kazerooni. All people and his colleagues believed him and named him Galen and Hippocrates of that era. When I became famous in medicine, after my father’s death (God bless him), I started to work as a physician and ophthalmologist in Mozaffari Hospital when I was only 14 years old, and I was in this position for ten years. I, like each great physician, spent all my time reading books unless I practiced medicine. I never missed working on a project unless I was involved in another project. I refused myself to satisfy learning this science like other contemporary physicians only for earning money, and my superego forced me to achieve the best in medical practice. Then, I started to study the first volume (including medical generalities) of the *Canon of Medicine* under the teaching

\textsuperscript{22} Mimura, T. (2013), 1-13.
of my uncle, Kamal al-Din Abul Kheir ibn Mosleh Kazerooni, who was the greatest philosopher. Then, I continued learning Canon by Shams al-Din Muhammad ibn Ahmad al-hakim al-Kishi, the great researcher. Then, I learned the Canon under the teaching of Sharaf al-Din Zaki Bushkani, the great polymath. These three persons were well known for teaching this book and could solve its challenges. God blessed them. However, these three persons could not cover all aspects of the book because this book is the hardest book in understanding this knowledge, although it includes exact scientific points and philosophical issues, and strange points that contemporary scientists were unable to understand. Therefore, I was disappointed at them and also from the commentaries I accessed them. The commentary of Fakhr al-Din al-Razi is disappointing because he reviewed only some parts of the Canon and did not comment on the whole book. But, the commentaries of the persons who followed him like Imam Quṭb al-Dīn al-Miṣrī and Afḍal al-Dīn al-Khūnajī and Rafie al-Dīn Jili and Najm al-Dīn Nakhjavani have nothing more than the commentary of Fakhr al-Rażī. Therefore, I went close to Naṣṣir al-Dīn Ṭūsī, the greatest scientist and philosopher over the world and the greatest magister of all scientists. God bless him. Some challenges were solved, but some others remained unsolved because the only covering of philosophical aspects is not enough for understanding this book, but it is necessary that the person also has experience in medical practice.

Then, I traveled to Khosaran land [north east of Iran], then to Iraq of’ Ajam [center of Iran], then Iraq of Arab, Baghdad and around it [Current Iraq] and then to Rome land [Byzantium; Current Turkey]. I had a discussion with the scientists and physicians of these cities and lands. I asked them about this book and its scientific points while I collected them and understood something that nobody achieved until now. Although I traveled everywhere, even Rome [Byzantium], there were too many unsolved issues about this book. Then, when I went to Sultan al-Mansur Qalawun, the king of Egypt in 681 A.H., I succeeded in accessing three other comprehensive commentaries for generalities there. One of them was written by Ibn an-Nafis and the second one belonged to Ya’qūb (Jacob) al- Samiri and the third one was written by Ibn al Quff. And also, I accessed the answers of al- Samiri to the questions of Najm al-Dīn ibn al-Miftah (Minhaft) on some parts of the book; also to the book of Tanqīḥ al-Qānun, written by of Ibn Jumay’ al-Isrā’ili while I refused the ideas of Avicenna; and also to some commentaries which were written in Iraq by Ibn al-Tilmīdh; and also to the books written by Abd al-Latif al-Baghdadi while I refused the book of Ibn Jumay’al-Isrā’ili. When I studied these commentaries, and also other books I accessed, all challenges of the book were solved while any problem in understanding the book did not remain. Therefore, I decided to write this commentary when I achieved the knowledge about this book [Canon of Medicine] although nobody achieved until
now... I started writing this book on 682 A.H... I first wrote a long and comprehensive book on the introduction and Arkan section of the Canon of Medicine, which became very famous among scientists, and they invited me to complete this commentary... After a long time, I decided to write a shorter and brief commentary on the whole parts of the Canon of Medicine...”

**DISCUSSION**

The autobiography has a long history, and Galen (129-210 CE), a Greek physician, is one of the pioneers in this subject. His autobiography was simple and contained only essential information about his life and treaties. Later, most scientists in Islamic civilization who have autobiographies followed a simple Galenic pattern to write their autobiographies24. However, Ḥub al-Dīn’s autobiography is completely different, and he has his own pattern. In Collectivism philosophy, science is a social subject that social developments affect25. Reviewing these effects of social impacts and the relations of people and government developments with science are considered by the sociology of knowledge26. It can be claimed that Ḥub al-Dīn was one of the pioneers in this subject in his autobiography and tried to discuss these social impacts and their relations to explain the scientific development of his era. He explained his life and his thinking on the scientific matters and reasons that led him to write *al-Tuhfa al-Sa’dīya*, his main medical work. As a great polymath, he traveled to many countries, and his words cleared the scientific atmosphere of 14th century AD. He also introduced his teachers and their abilities and works directly. Furthermore, the scientists worked on the Canon of Medicine and had commentaries on this book that were introduced comprehensively in this autobiography. He explained the commentaries on the book of Canon of Medicine and defined their strengths and weaknesses. Ḥub al-Dīnpresented a scientific criticism for these commentaries and believed he solved their problems in his commentary. His words show the importance of the Canon of Medicine and Avicenna in the then scientific society across Islamic territories. Also, it is concluded that there was a great scientific atmosphere, including discussions and criticisms among scientists and scholars. Many scientists who followed the Canon of Medicine and others who criticized that book and deep

---

23 Majlis Shura Library, MS no. 1177, Ḥub al-Dīn al-Shārāzī, *Al-Tuhfa al-Sa’dīya*, Original manuscript, (1326).
24 Rosenthal, Franz (1937), *Die arabische Autobiographie*, Roma; Pontificium Institutum Biblicum.
25 Chalmers, Alan F. (1999), *What Is This Thing Called Science?* London; Open University Press.
26 Knoblauch, Hubert (2006), *Wissenssoziologie*, Stuttgart;UTB GmbH.
discussions among them were mentioned. Furthermore, it shows the unity of science in Islamic lands and neighbors; from Transoxiana to Byzantium.

On the other hand, there are no other reports about many of the scientists he introduced, and this is the sole reference to them. It is too important because we can only know them from his report. Also, Shams al-Din Kishi and Sharaf al-Din Boushkani, two scholars who teach the Canon of Medicine and were introduced by Ḥubb al-Din, are known as teachers of religious knowledge. This shows that the teaching of the Canon of Medicine began to be performed in religious teachings as well. This tradition continues to this day in Islamic teachings.

Another important point is considering the personal character of Ḥubb al-Din according to his words. Ḥubb al-Din has great self-confidence when he presents himself as a great scientist, but he also respects his teachers and the scientists who believed in their great impact on science. He has frank characteristics and criticizes the scientific characters of the scientists whom he presented free-hearted. Also, his work shows that his active personal character in scientific activities led him to travel all around the world at that time and actively discuss with different scholars.

**Conclusion**

The autobiography of Ḥubb al-Din in al-Tuhfa al-Sādiya is a unique work in Islamic literature. This work shows not only his life timeline but also his personal characteristics and the scientific atmosphere of his era. This work helps us to better understand the scientific and social impacts of that time on Islamic civilization. It is an important report to review the social history of medicine.

**Conflict of interest**

There is no conflict of interest.
Figure 2. The first page of Al-Tuhfa al-Sādiya. The original copy kept in Majlis Shura library; MS no. 65070.
1. Abbasnejad, Feridoon, Shoja, Mohammadali M., Agutter, Paul S., Alakbarli, Farid, Loukas, Marios, Shokouhi, Ghaffar, Khalili, Majid, Tubbs, R. Shane (2012), Rabi Rashidi (Rashidi Quarters): a late thirteen to early fourteenth century Middle Eastern Medical School, Childs Nervous System, 28 (11), 1823-1830.

2. Anawati, Georges Chehata (1982), Abhari, Atir-Al-Din, in: Encyclopædia Iranica, Vol. I/2, http://www.iranicaonline.org/articles/abhari-samarqandi-air-al-din-d-1264-logician-mathematician-and-astronomer (accessed: 8 December 2017).

3. Bertolacci, Amos (2001), From al-Kindi to al-Farabi: Avicenna's Progressive Knowledge of Aristotle’s Metaphysics according to his Autobiography, Arabic Sciences and Philosophy, 11 (2), 257-295.

4. Chalmers, Alan F. (1999), What Is This Thing Called Science? London; Open University Press.

5. Enjoo, Seyyed Ali, Mosavat, Seyyed Hamdollah, Heydari, Mojtaba (2014), Medical Ethics in Iranian Traditional Medicine, a Review of Qṭb al-Dīn al-Shīrāzī’s Ethical Code, Journal of Research on History of Medicine, 3(3), 113-122.

6. Good, James M. (1981), William Taylor, Robert Southey, and the Word “Autobiography”, The Wordsworth Circle, 12 (2), 125.

7. Hajīha, Abbas (2008), Qutb al-Dīn al-Shīrāzī and his opinions and works, Peīk Noor, 6 (4), 171-190.

8. Knoblauch, Hubert (2006), Wissenssoziologie, Stuttgart; UTB GmbH.

9. Kordafshari, Gholamreza, Kenari, Hoorieh Mohammadi, Esfahani, Mohammad Mehdi, Arakani, Mohammad Reza Shams, Keshavarz, Mansoor, Nazem, Esmaeil, Moghim, Maryam, Zargaran, Arman (2015), Nutritional aspects to prevent heart diseases in traditional Persian medicine, Journal of Evidenced Based Complementary and Alternative Medicine, 20 (1), 57-64.

10. Lane, George (2012), Mongol News: The Akhbār-i Moghulān dar Anbāneh Qutb by Qutb e-Dīn Mah.ūd ibn Masʿūd Shīrāz, Journal of the Royal Asiatic Society, 22 (3-4), 541-559.

11. Majlis Shura Library, MS no. 1177, Qutb al-Dīn al-Shīrāzī, Al-Tuḥfa al-Saʿādiya, Original manuscript, (1326).

12. Mimura, Taro (2013), Qutb al-Dīn al-Shīrāzī’s Medical Work, al-Tuḥfa al-Saʿādiya (Commentary on volume 1 of Ibn Sinā’s al-Qānūn fi al-Tibb) and its Sources, Tārikh-e Elm, 10 (2), 1-13.

13. Mohaghegh, Mehdi (2013), Qutb al-Dīn al-Shīrāzī and his autobiography, Isra Hikmat, 5 (15), 171-176.

14. Mohaghegh, Mehdi (1978). Al-Kātibī, Najm al-Dīn Abu’l-Ḥasan ‘Ali b. ‘Umar”, in: van Donzel, Emeri J. et al. (ed.), The Encyclopaedia of Islam, Leiden; Brill, 762a–b.

15. Mulyadi, Sukidi (2009), Al-Hilli, in: Oxford bibliographies, http://www.oxfordbibliographies.com/view/document/obo-9780195390155/obo-9780195390155-0032.xml (accessed: 8 December 2017).

16. Nadim, Mostafa, Farjam, Mojtaba (2016), Qutb al-Dīn Shīrāzī (1236-1311), Persian polymath physician in the medieval period, Journal of Medical Biography, 24 (3), 360-362.
17. Naṣīr al-Dīn al-Ṭūsī (2017), in: Encyclopedia Britannica, https://www.britannica.com/biography/Nasir-al-Din-al-Tusi (accessed: 8 December 2017).
18. Pourjavady, Reza, Schmidtke, Sabine (2009), Qutb al-Dīn al-Shīrāzī (D. 710/1311) as a Teacher: An analysis of his Ijāzāt (studies on Qutb al-Dīn al-Shīrāzī III), Journal Asiatique, 297 (1), 15-55.
19. Ramezany, Farid, Shams Ardakani, Mohammad Reza (2011), Ali ibn Hosein Ansari (1330-1404): a Persian pharmacist and his pharmacopoeia, Ekhtiyarat i Badi I, Journal of Medical Biography, 19 (2), 80-83.
20. Rosenthal, Franz (1937), Die arabische Autobiographie, Roma; Pontificium Institutum Biblicum.
21. Şahin, Hanifi (2015), The conversion of Ghazan Khan to Islam and its reflections on Ilkhanid society according to Jāmi al-Tawārīkh, Bilig, 73, 207-230.
22. Tadjbakhsh, Hassan (2000), History of Veterinary medicine and medicine of Iran, Vol. 1, Tehran; University of Tehran Press.
23. Taylor, Chole (2009), The Culture of Confession from Augustine to Foucault, New York: Routledge.
24. Zargaran, Arman, Mehdizadeh, Alireza, Yarmohammadi, Hassan, Kiani, Hassan, Mogheghzadeh, Abdolali (2015), Borzouyeh, an ancient Persian physician who first reported uterine contractions in normal vaginal delivery, Acta Medico Historica Adriatica, 13 (2), 23-28.
25. Zargaran, Arman (2014), Ancient Persian medical views on the heart and blood in the Sassanid era (224-637 AD), International Journal of Cardiology, 172 (2), 307-312.
Quṭb al-Din Shirāzī (1236. – 1311.), perzijski homo universalis dao je velik doprinos u području filozofije, matematike, medicine, astronomije, glazbe, književnosti i islamskih studija. Živio je za vrijeme Ilhanidskog kraljevstva u Iranu. U predgovoru svoga medicinskog rukopisa al-Tuḥṭa al-Saʿdiya napisao je autobiografiju. Promišljao je o svojim pogledima na znanost, a zatim objasnio svoju životnu priču, posebno svoje obrazovanje i doprinos znanosti. Spomenuo je razloge zbog kojih je napisao al-Tuḥṭa al-Saʿdiya, svoje glavno medicinsko djelo. Kao veliki homo universalis putovao je u mnoge zemlje i svojim je riječima razjasnio znanstveno ozračje 14. stoljeća. Izravno je predstavio svoje učitelje i njihove sposobnosti i djela. Znanstvenici koji su radili na Kanonu medicine imali su komentare na tu knjigu, a ti komentari su sveobuhvatno uvedeni u al-Tuḥṭa al-Saʿdiya.

Ključne riječi: perzijska medicina, povijest medicine, medicinska biografija, srednjovjekovno doba