

ORIGINAL ARTICLE



The Assessment of the Evolution of Medical Knowledge and Treatment in Shiraz during the Afsharid and Zand Periods

Abstract

As “*Darolelm*”¹, Shiraz has always been a pioneer in various fields of knowledge including medical sciences. The physicians of this city have played an important role in advancing medical sciences since the fourth century AH and especially in the Buyid period. The medical knowledge in Shiraz continued its life from the Buyid period to the Safavid period but declined with the Afghan invasion and the fall of the Safavid government. After the Afghan rule, even with the coming to power of the Afsharid government, medical knowledge could not be restored and the eminent physicians of Shiraz migrated to India due to the welcoming of the Indian rulers. Although Karim Khan Zand tried to improve the economic and social conditions of Shiraz, conflicts in various parts of the country led to the decline of medical knowledge. In general, the prevalence of various diseases (to which many factors contributed), such as cholera, plague, and syphilis, indicated the decline of medical knowledge in this period. Using a descriptive approach along with the analysis and collection of data based on a library method, the current research examines medical knowledge with an emphasis on the diseases of people in Shiraz and the efforts of Shirazi physicians during the Afsharid and Zand periods to cure these diseases.

Key words: Afsharid, Zand, Shiraz, Disease, Cholera, Smallpox

Received: 16 Sep 2019; Accepted: 9 Oct 2019; Online published: 25 Nov 2019
Research on History of Medicine/ 2019 Nov; 8(4): 203-212.

Abolqasem Bahrami Chegeni¹ 
Mostafa Nadim² 
Soleyman Heidari³

1- Ph.D. Student, Department of History, Faculty of Literature and Humanity, Shiraz University, Shiraz, Iran
2- Ph.D., Associate Professor, Department of History, Faculty of Literature and Humanity, Shiraz University, Shiraz, Iran
3- Ph.D., Assistant Professor, Department of History, Faculty of Literature and Humanity, Shiraz University, Shiraz, Iran

Correspondence:

Mostafa Nadim
Ph.D., Associate Professor, Department of History, Faculty of Literature and Humanity, Shiraz University, Shiraz, Iran

mos.nadim@gmail.com

1- The former name of Shiraz meaning “the House of Knowledge”.

Citation:

Abolqasem Bahrami Chegeni, Mostafa Nadim, Soleyman Heidari. The Assessment of the Evolution of Medical Knowledge and Treatment in Shiraz during the Afsharid and Zand Periods. *Res Hist Med.* 2019;8(4):203-212.



Introduction

In investigating the continuity and evolution of medical knowledge in Iran after Islam, the researchers identified four distinct periods. In the first period, Greek medicine entered Iran and was integrated with Iranian medicine. During this period, Iranian physicians worked at Jundishapur University until the beginning of the third century AH. With the burgeoning of the Baghdad medical school and the migration of a number of Iranian physicians to Baghdad, Jundishapur University gradually lost its importance and hence medical knowledge entered its second phase with the support of the Abbasid caliphs. At this stage, medical knowledge and medicine were influenced by the translation movement and thereby numerous books, in various fields of medicine, were translated into Arabic and were made available to Iranian physicians who began practicing medicine based on the experiences of the other nations. The translation movement culminated in the era of the Abbasid caliphs *Harun al-Rashid* and *al-Ma'mun* and then lost its luster with the dominance of anti-rational thinking. However, despite the opposition of some thinking movements to intellectual sciences, medical knowledge continued its evolution and reached its most brilliant period in the middle of the third and fourth centuries AH. Such famous physicians as *Ibn Sina (Avicenna)*, *Zakaria Razi*, and *Ali ibn Rabban al-Tabari*, practiced their profession during this period (the third period). The main characteristic of the third period was that the Iranian physicians did not just use the medical knowledge of past generations. Rather, in this period, they wrote enduring books in the medical field which were taught in the medical schools worldwide for a long time. After the third period, Iranian medicine gradually achieved stability and although physicians, such as *Sharafuddin Isma'il Gorgani*, brought about a change in the medical knowledge with the book *The Treasure of Khwarazm Shah*, medical knowledge after him changed in a continuous manner rather than being evolved. The physicians of the Safavid period were also unable to restore the burgeoning and prosperity of medicine during *Ibn Sina's* era. The stagnation of medicine and medical practice continued in the Afsharid and Zand periods. Nevertheless, despite the short period of power holders and the political struggles of the claimants of power in these two periods, few Iranian physicians, including Shirazi physicians, had some activities in medicine and medical practice. There has been no independent article on the continuation and evolution of medicine in Shiraz during the Afsharid and Zand periods. Using a descriptive approach along with text analysis based on library sources including



medical history texts, the current research seeks to answer the following questions: “what was the status of medicine in Shiraz during the Afsharid and Zand periods?” and “what was the effect of *Karim Khan Zand*’s selection of Shiraz as the capital on medicine during the Zand period?” In order to answer these questions, first, the status of medicine in Shiraz before the Afsharid period is briefly discussed and then, in the following sections, the topic of the paper is addressed.

The Status of Medicine and Medical Practice in Shiraz before the Foundation of the Afsharid Government

Although archaeological findings have provided evidence of a settlement in present-day Shiraz before Islam, there was no indication of the progress of medical knowledge in this city in ancient times. The flourishing and prosperity of Shiraz, especially in the medical field, took place after Islam.

During the Islamic era, the coming to power of the Buyid dynasty and the selection of Shiraz as one of the capitals of this dynasty led to the flourishing of different branches of science, including medicine. The examination of historical sources showed that *Azad al-Dawlah*, one of the most powerful rulers of the Buyid dynasty, built a large hospital in Shiraz and established a center near Shiraz for the purpose of medical education.² After the fall of the Buyid dynasty and the Seljuk rule over Shiraz, medical activities did not stop and the medical facilities established in Shiraz during the Buyid dynasty continued to operate until the eighth century AH.

Little is known about the course of medical knowledge and the famous physicians of Shiraz from the eighth century AH until the coming to power of the Safavid government. Some historical sources refer to a Shirazi physician named ‘*Mansur ibn Ilyas*’, the author of the medical book entitled *Tashrihi Mansuri* (or *Mansur’s Anatomy*), who has dedicated it to the Timurid Governor of Fars (*Sultan Ziauddin Pir Mohammad Bahador*).³ In this book, he has described the anatomy of the human body. So far, there has been no information about the activities of Shirazi physicians and their therapeutic practices during the Turkoman rule.

In the Safavid period, especially with the coming to power of *Allahverdi Khan* and *Imam-Quli Khan* in Shiraz, medicine and medical practice in Shiraz began to receive attention. On the one hand, with the support of *Imam-Quli Khan* and the permission of *Shah Abbas I*, the Carmelite missionaries founded a poorhouse in Shiraz in 1623, in which people suffering from illnesses were visited by physicians.⁴ In addition, *Allahverdi Khan* and *Imam-Quli Khan* supported science and knowledge, especially the medical knowledge. In this pe-

2- Elgood, 1973: 249.

3- Anonymous, n.d.: 9.

4- Anonymous, 1939, Vol. 2: 1062-68.



riod, many physicians practiced their profession in Shiraz. Historical sources gave reference to a number of famous Shirazi physicians, including *Ghiasuddin Mansur Dashtaki*, *Mohammad Taqi Shirazi*, and *Imad al-Din Shirazi*.⁵ Moreover, in this period, some physicians wrote books in the field of medical knowledge that were not very innovative, compared with the works of the preceding generations.

In this period, the tradition of *waqf* (charitable donation) was more seriously put to the service of medicine. In addition to donating a *dar al-shafa* (hospital), the donors also defined the uses of *waqf* in employing skillful physicians and helping with the costs of food, drinks, spices (medicines). Other preparations for treatments were also defined as the cases for which the donations had to be used. The reality is that the medical knowledge was not making much progress. In addition, due to the political turmoil of the late Safavid period, a number of physicians, including Shirazi physicians, migrated to India.⁶

After the fall of the Safavid government and the coming to power of the Afghans in Iran, the health status of people in Shiraz deteriorated. As a result of the conflicts and clashes, cholera and smallpox spread in the city⁷ and 30000 people lost their lives.⁸ The Afghans were eventually expelled by *Nader Shah* from Shiraz but the consequences of the clashes remained for a long time.

The Coming to Power of Afsharid and Zand Dynasties and the health status of Shiraz

The coming to power of *Nader Shah* and the establishment of the Afsharid dynasty in Iran did not bring political calm to the Fars province and in particular to Shiraz because it was not long after the beginning of *Nader's* reign that chaos permeated Shiraz. *Taqi Khan*, *Nader's* puppet ruler, was in conflict with *Ali Khan* and a lot of people were killed.⁹ After *Taqi Khan's* rebellion was ended by *Nader's* agents in Shiraz, the post of Shiraz's governor was handed over to *Mir Hossein Bey*. Shortly after becoming the governor, he was killed by *Nader's* order for failing to control the political situation.¹⁰ The fate of the next ruler of Shiraz, *Ghulij Khan Ganjehlu*, was similar to that of *Mir Hossein Bey* and he too was killed by *Nader's* order. The assassination of local rulers aggravated the political situation in Fars province and Shiraz. The turmoil adversely affected many aspects of life, including the health status. In this period (Afsharid), owing to the political conflicts and the neglect of affairs, plague claimed the lives of many people in Shiraz. Cholera also spread, killing as many as 4000 people.¹¹ After the collapse of the Afsharid

5- Forsat Shirazi, 1988, Vol. 2: 458.

6- Hosseini, 2000: 17.

7- Hosseini, 2009, Vol. 1: 15.

8- Kalantar Fars, 1983: 5.

9- Axworthy, 2009: 345.

10- Khoob Nazar, 2001: 810.

11- Marvi, 1995: 18.



government and the coming to power of *Karim Khan Zand* in Shiraz and the selection of Shiraz as the capital, the health status improved slightly. Nevertheless, various diseases, such as diarrhea, joint pain, leprosy, dementia, black leprosy, deafness, and blindness, were prevalent. In addition to these diseases¹², cholera and plague continued taking victims. In addition to the diseases and the resulting deaths, droughts and poverty in the late Zand period also increased the death toll. This was mainly because people had become physically weak and their bodies lacked the necessary resistance to diseases.¹³

12- Kalantar Fars, 1983: 11.

13- Kalantar Fars, 1983: 79.

Causes of Disease Outbreaks in Shiraz during the Afsharid and Zand Periods

The prevalence of diseases in a geographical region and its control are closely related to the health status of the residents and the people's extent of understanding of health standards. In addition, the ability of physicians in finding the causes of diseases and their speed in treating diseases can also be effective in controlling and eventually eradicating infectious and non-infectious diseases. In the meantime, the physicians' activities, the provision of medications, and the maintenance of health standards depend on one important issue, i.e. political stability and security. Lack of security in a society can affect the health status, supply of medications, and so on.

In the period under study, except for *Karim Khan Zand's* short period, the political situation in Shiraz was not calm and the claimants of power clashed with each other in order to seize the throne or rule the city. As a result of these conflicts, a lot of people lost their lives. The abandonment of corpses and their corruption in different parts of the city prepared the ground for various diseases. In addition, unhealthy drinking water caused a number of diseases throughout the city before the establishment of a water piping system in Shiraz.

Some flawed traditions and the incorrect interpretations of religion also contributed to the spread of diseases. Influenced by religious teachings that considered a sufficient volume of water as clean, people thought that all running water was clean and hence used to drink it or using it for laundry. As a result, they became afflicted with diseases, especially water-borne diseases, such as cholera.

Some other religious traditions were also influential on the outbreak of diseases. The tradition of burying the dead in the holy shrines of Najaf and Karbala was also one of the things that could prepare the ground for the transmission of diseases. After Islam and especially in the Safavid era, some people, especially the wealthy, wanted to be buried in Karbala or Najaf after their death. If for some reasons, it was not possible



to transfer the body of the deceased person to Karbala or Najaf, the body was temporarily buried so that it could later be transferred to these sacred places. The problem was that if a person died from an infectious disease, improper interim burial as well as the transfer of the body on beasts of burden could spread the pathogenic germs on the move. This was especially the case in the cholera years.¹⁴

The lack of sanitary toilets and the improper disposal of sewage from residential homes were other health problems in Shiraz at that time, which were the leading causes of a number of health disorders among people.

The Medical Treatment Centers during the Afsharid and Zand Periods

The existence of medical centers, together with experienced doctors, is an essential condition for preventing and controlling diseases. As mentioned in the previous discussions, the Azodi Hospital, constructed during the Buyid period, continued to operate long after the fall of the Buyid dynasty. However, no reports of this treatment center in the Afsharid and Zand periods are available. Besides the Azodi Hospital, there is also no report of the activity of another hospital, founded by *Atabak Abubakr bin Sa'ad Zangi* in Shiraz¹⁵ in the seventh century, during the Afsharid and Zand periods.

The activity of the Carmelites' hospital, which was established in Shiraz in the Safavid period, was stopped with the Afghan invasion and finally, all medical activities of this hospital in Shiraz were terminated in 1738 AD.¹⁶

Despite the silence of the sources about the medical centers in Shiraz during the Afsharid and Zand periods, it seems that due to the needs of the people and especially the local rulers, there must have been medical centers in Shiraz at that time. It seems unlikely that *Karim Khan Zand*, making significant developments in Shiraz, has not taken any action in constructing hospitals. Therefore, it can be speculated that there have been some hospitals in Iran and Shiraz during the Afsharid and especially Zand periods.¹⁷

Shirazi Physicians and Therapeutic Practices in Shiraz during the Afsharid and Zand Periods

In historical sources, the researchers have found references to a number of Shirazi physicians in the Afsharid and Zand periods. Some of these physicians did not continue practicing their profession in this city and migrated to India. However, some others preferred to stay and practice their profession in Shiraz despite the charms of India and its rulers' support for physicians. No information was found about the

14- Heidari, 2017: 211.

15- Mir, 1961: j.

16- Anonymous, 1939: Vol. 1: 515-518.

17- Ghazvini, 1988: 155.



activities of physicians in Shiraz in the Afsharid period and most of the information available about Shirazi physicians in this period was related to *Mohammad Hashem Shirazi*, known as *Alavi Khan*, a famous Shirazi physician living in India. *Alavi Khan* gained a lot of fame in India and became the court physician of *Muhammad Khan Mughal*. Owing to *Alavi Khan*'s expertise in medicine and his achievements in medical knowledge, he was considered as the successor of *Ibn Sina* and *Zakaria Razi*.¹⁸ Although *Alavi Khan*, who was returned to Iran by *Nader* and became *Nader*'s physician for some time, he, besides medical therapy, through honest and frank speech therapy, succeeded in stimulating *Nader Shah*'s spiritual reflection and preventing him from committing unnecessary killings. Of course, there was found no information about his relationship with his hometown of Shiraz.^{19, 20}

More information has been found about the activities of physicians during the Zand period. The most important physician of this period was *Mirza Nasiruddin Mohammad Jahromi*, the son of *Mirza Abdullah Tabib*, who was born in Jahrom and then settled in Isfahan. *Karim Khan Zand* summoned him to Shiraz and made him his own special physician. Toward the end of his life, he was offended by *Karim Khan* and left the court. Of the medical writings of Nasiruddin, the books *Assas al-Seheh* and *Shafa al-Asqam* can be mentioned. *Mirza Ahmad* was well-known in the field of medicine so much so that people used various titles to refer to him, namely the *Messiah of the time*, *Sina of wisdom*, *Hippocrates*, *Aristotle*, *Abu Rayhan*, *Plato*, and *Galen*. He had a great deal of knowledge in medical science and pharmacology, and therefore, a lot of patients used to refer to him. He relied on empirical observations in examining the patients and tried to administer medication to his patients based on pulse examination, urine observation, and some other symptoms.^{21, 22}

Some physicians in the Zand period were also proficient in surgical knowledge. One of the most famous surgeons of this period was *Haji Rabi* who was skilled in the treatment of ear diseases. When the sheriff of Fars was afflicted with earache, he referred to *Haji Rabi*. The sheriff wrote in his memoir that *Haji Rabi* promised to treat him in return for a certain amount of money. *Haji Rabi* used a mercury hookah for treating the sheriff but it failed to have the desired effect.²³ One of the last physicians of the Zand period was *Mirza Mohammad Hossein Hakim Bashi* whose ancestors had been practicing medicine in Shiraz near Shah Square since the Safavid period. Not much information is available on the activities of this Shirazi physician and his achievements in medicine.²⁴

Shirazi physicians had different treatment methods in the

- 18- Mir, 1961: 84-85.
- 19- Minorsky, 2008: 385.
- 20- Astarabadi, 1998: 798.
- 21- Asef, 2003: 419.
- 22- Forsat Shirazi, 1998, Vol. 1: 20.
- 23- Kalantar Fars, 1983: 61.
- 24- Hosseini, 2009, Vol. 2: 1096.



Afsharid and Zand periods. In general, before the advent of modern medicine in Iran, therapeutic practices in Iran, including Shiraz, were in three forms. In the first form, some physicians, following the traditions of *Galen* and *Ibn Sina*, regarded the physical and spiritual health of individuals as dependent on the balance of humors in the body. According to them, the imbalance of the humors would lead to illnesses. The second method of treatment was based on Islamic precepts and the narratives attributed to the Fourteen Infallibles. In this method, their emphasis was on the prevention and treatment through food, simple medicines, recourse to God, and prayer and also recourse to tombs and shrines. The third form of treatment, which was somehow mixed with the other two previous forms, was a folk-based medicine and indigenous treatments.²⁵ All the three forms of treatment have been common in Shiraz during the Afsharid and Zand periods but owing to the lack of enough information, it is not possible to determine which of the three mentioned forms has been used by the physicians living in this city.

In addition, some medical books written by Shirazi physicians in the Safavid period were in the center of attention in the Afsharid and Zand periods. Of the most important medical works were *Moallem al-Shafa* and the Summary of *Moallem al-Shafa*, written by *Ghiasuddin Mansur bin Mohammad Dashtaki*. These books were written in Shiraz in the Safavid period.²⁶

Conclusion

In the history of Iran after Islam, especially from the fourth century AH onwards, Shiraz was known as “*Darolelm*”. This city was a center for the activities of various scientists, including physicians in past ages. Shirazi physicians, especially in the Buyid period, made important contributions to the medical field. After the collapse of the Buyid dynasty (the Fars branch), medical knowledge in Shiraz lost its splendor and most of the works that the physicians compiled in various fields of medical sciences were not very innovative. Nevertheless, with their efforts, some physicians were able to make some progress in medical knowledge and hence some slight changes in their therapeutic practices, especially during the Timurid rule in Fars. During the Safavid period, several Shirazi physicians continued to work and some of them who were more famous than others, such as *Ein al-Molk Shirazi*, migrated to India.

The migration of famous Shirazi physicians in the Safavid period, the Afghans’ conquest of Iran, and *Nader Shah*’s battles with the Afghans harmed the advancement of medical

25- Parghoo, 2017: 35.

26- Hosseini, 2009, Vol. 2: 1148.



knowledge in Shiraz so much so that various diseases such as plague and cholera broke out in the city. After the formation of the Zand government and the relative peaceful reign of *Karim Khan*, some physicians found some opportunities to practice their profession. However, the medical science no longer made the required progress and the physicians mainly used treatment methods based on the medicine of *Ibn Sina* and *Galen* which no longer met the needs of that day. *Ibn Sina* and *Galen's* medicine could not provide suitable treatments for some diseases and for this reason various diseases, such as plague and cholera, spread during the Afsharid and Zand periods. After the collapse of the Zand dynasty, the inability of traditional medicine to cure diseases led to the gradual replacement of modern medicine introduced by European physicians.

References

Anonymous. *A Chronicle of the Carmelites in Persia and the Papal mission of the XVII and XVIII centuries*. Vols. 1 and 2. London: n. p., 1939.

Anonymous. *Manuscript in the library of the Islamic Consultative Assembly*. n.d. number: 1-7668.

Asef M. [*Rostam al-Tavarikh*]. Edited by Mitra M. Tehran: Donyay-e Ketab, 2003. [in Persian]

Astarabadi M. [*Jahangusha-i Naderi*]. Edited by Anvar A. Tehran: The Society for Cultural Works and Honors, 1998. [in Persian]

Axworthy M. *Iran during Nader's Period*. Translated by Kalam Z, Nia-koie SA. Tehran: Rozaneh, 2009. [in Persian]

Elgood S. *Medical History of Iran*. Translated by Javidan M. Tehran: Eqbal Publications, 1973. [in Persian]

Forsat Shirazi M. [*Asar-e Ajam*]. Vol. 1 and 2. 1st Edition. Tehran: Amir Kabir Publications, 1998. [in Persian]

Ghazvini. [*Favayed al-Sofieh*]. Editing, introduction, and glosses by Mirahmadi M. Tehran: Institute for Cultural Studies and Researches, 1988. [in Persian]

Heidari S. Investigating the Reasons for the Outbreak of Cholera in Shiraz (from 1236 to 1322 AH). *The Quarterly of Research in Medical History*. 2017; 6(4): 207-218. [in Persian]

Hosseini F. [*Fars-Nama-ye Naseri*]. Vol 1 and 2. Edited by Rastegar Farsaie M. Tehran: Amir Kabir Publications, 2009. [in Persian]

Hosseini Kh. *History of Ilchi Nizam Shah*. Editing and additions by Mohammad Reza N and Kouichi H. Tehran: The Society for Cultural Works and Honors, 2000. [in Persian]

Kalantar Fars M. *The Journal of Mirza Mohammad Kalantar*. Edited by Eqbal Ashtiani A. Tehran: Ketabkhaneh Sanaie Publications – Ketabkhane Tahori, 1983. [in Persian]

Khoob Nazar H. *The History of Shiraz*. Tehran: Sokhan, 2001. [in Persian]

Marvi M. [*Alam Aray-e Naderi*]. Vol. 2. Edited by Riahi M. Tehran: Elmi Publications, 1995. [in Persian]



Minorsky V. *Iran during Nader Shah's Period*. Translated by Yasmi R. Tehran: Donyay-e Ketab, 2008. [in Persian]

Mir M. *The Famous Physicians of Fars*. Shiraz: Shiraz University, 1961. [in Persian]

Pargoo M, Poor Silab M. Plague in the Iran of the Safavid Period. *Quarterly of Social History Researches*. 2017; 7(1): 33-55. [in Persian]

