

***Dr. Fatemeh Janahmadi**

Associate Professor of History of Islam Dept,
Al-Zahra University Tehran

****Ahmad Reza Behniyafar**

Ph.D Student of history of Islam Dept,
Ma'aref University Qom

Journal of Subcontinent Researches

University of Sistan and Baluchestan

Vol. 5, No.15, summer 2013

(pp.79-106)

Civilisational Contributions of Iranian Physicians in Gurkani Royal Court

Abstract

Immigration of Iranian elites to the Indian subcontinent has already been studied by researchers. However, what the present study aims to explore is the way and the reasons for which Iranian physicians immigrated to India, as well as their impacts. Preliminary studies revealed that the progressive trend of such immigrations was the result of an impulsive atmosphere in Iran, on the one hand, and attractive forces in India, on the other. Tracing the ways through which Iranian physicians gained entry to Gurkani royal court, we can study their roles in academic, literary and artistic domains. Their inventions, actions and interventions in cultural, political, and academic affairs in Indian royal court helped the development of medical, political, governmental domains and eventually paved the way for integration and penetration of Iranian culture. What is concluded is that such immigrations not only familiarized Indians with Iranian thoughts but also the attempts made by Iranian physicians proved effective in the development of Islamic-

* Email: F_janahmadi@Alzahra.ac.ir

** Email: a.behniyafar@Damghaniau.ac.ir

receipt: 2-10-2012

Acceptance: 6-5-2013

Iranian culture and civilization there. A descriptive-analytic approach was adopted for this study and the related evidence was extracted from old and historical documents.

Key words: Iranian physicians, immigration, Safavid, Gurkani, Islamic civilization, medical profession.

Introduction

Immigration of Iranian physicians to India and their influential roles in developing the civilization in the Indian subcontinent has a long history. Geographical adjacency and suitable situation of India as well as domestic political, military and economic hazards in Iran increased the pace of immigration. In some occasions, the speed of immigration accelerated due to several events including military issues or uproar in borders or conquests and trooping made by rulers such as Sultan Mahmud to the north of India, Moguls' attack and insecurities caused by the rise of the Safavids and later on the ruling of the Afghans and the collapse of the Safavids.

Historical reports show that one of the main causes of increase in such immigrations was domestic driving forces in Iran. Based on political and social conditions, we can categorize them under impulsive forces, which eventually led to compulsory immigration or fleeing from probable problems.

For example, the attack of Shah Abbas on Guilan and suppression of rebellion in this region and lack of due attention on the part of Safavid kings to elites led to their immigration. Of course, the attractive forces in India proved effective in determining this destination. Seemingly, factors such as security and comfort and knowledge-seeking spirit of the Indian rulers and authorities made this land suitable for qualified Iranians where they could obtain political posts and positions. The causes of immigration of Iranian elites, particularly physicians, to the Indian subcontinent are the main subject of this study. Although such immigrations have caused Iranian society to experience a big loss, yet, they have been beneficial for the target society, particularly with regard to cultural and civilizational aspects. The Gurkani royal court experienced a prosperous period during the

presence of such elites. The expansion of Iranian thoughts and civilizational impacts of these elites on the development of Indian civilization are among these achievements. Preliminary historical studies about social status of such elites represent that a good number of them were Iranian physicians, who had immigrated to India from renowned parts and cities like Guilan, Shiraz and Tabriz. As well as other elites, the reputation of physicians from Guilan and Shiraz was outstanding due to the crucial role played by them in familiarizing Indians with new medical issues and their participation and intervention in various domains including politics, government, literature, architecture and the like.

Accordingly, the main questions raised are: How did Iranian physicians influence the civilizational changes in Indian Gurkani government? How did they affect the political affairs of the country? What were their roles in other civilizational domains?

It should be mentioned that the only book available on immigration of Iranian physicians to India was *Guilan-nameh*, written by Dr. Ali Foroohi, which only addresses the immigration of Guilani physicians to India, and apparently no other studies could be found.

Although amongst the available documents and works on Iranian immigration to India, some have touched upon the issue of Iranian physicians' immigration, yet there seems to be lack of researches on this issue which adds to the necessity of conducting a solid study. The present study is a historical research and the majority of claims are based on library-oriented historical documents. The adopted data analysis method is a descriptive-analytic one which enabled us to describe the situations of immigration of Iranian physicians, their settlement and the civilization-construction roles played by them. To answer the above-mentioned questions, we need to start with a brief introduction of immigrant physicians at that time and their academic /scientific contributions, inventions and medical accomplishments. This will obviously help to recognize the roles played by Iranian physicians in initiating civilizational changes and developments throughout the 10th to 12th centuries (A.H.).

Studying the Reasons for Immigration of Iranian Physicians to Indian Gurkani Royal Court

It is said that the immigration phenomenon is generally affected by two corresponding, yet contrary issues. One is the domestic force that drives out the immigrants and we can call it the repulsive factor, and the other is the attractive force of the target land, with new and probably unknown and precarious conditions, that allures the immigrants and we call it the attractive force.

Doubtlessly, we need to consider these overlapping, interwoven forces in the immigration of Iranian physicians during the last decades of the 8th century and early decades of the 9th century which eventually led to the collapse of the Timurid dynasty and the rise of the Safavid dynasty. For example, among the repulsive forces in Iran, we can refer to protests staged by Khan Ahmad Guilani in Guilan which began from the time of Shah Tahmasb and reached its peak during the reign of Shah Abbas. This provoked the Safavid Shah to launch an attack to this region. (Munshi, 1377:122; Afoosheyi Natanzi, 1350: 123-124) As a result of this uproar and the following attacks made by Ghezelbash soldiers to this region, some elites fled to other countries including India.

Among these figures, there were well-recognized persons like Abulfath Guilani and his brothers, Hakim Najib ul-Din Homam and Hakim Noor al-Din Gharari. Having entered the Gurkani royal court in 983 A.H., these three brothers became close companions of Akbar Shah Gurkani and obtained high positions. (Alami, 1372: 496/3; Gurkani, 1359: 58-59)

No need to mention that although the Mogul's invasion of Iran and the political conditions of the country, from the collapse of the Moguls to the rise of the Safavid dynasty, were effective in the immigration of Iranians, particularly physicians to India, the rise of the Safavid dynasty and some other factors and conditions like the religious policies of the Safavids, their lack of due attention to elites, Ozbak attacks to the east of Iran, especially Khorasan, and the rise of movements such as Naghtaviyeh, the attack of Afghans and collapse of the Abbasid dynasty accelerated such immigrations.

Although domestic forces are highly significant in this phenomenon, attractive forces of the target land were also effective in accelerating this growing trend. Geographical and political attractions

of the Indian subcontinent, along with domestic forces, proved effective in such mass immigrations. Yet, the political and cultural role of Gurkani kings in India (932-1275), especially Baber, Humayun, Akbar, Jahangir, Shah Jahan, in provoking and inviting the refugees and elites cannot be ignored. Taking advantage of the policy of negligence and indulgence, and creating suitable conditions in granting accommodations and vocational security, as well as art and knowledge appreciation showed by Indian kings attracted Iranian elites, particularly physicians.

Due to impulsive forces such as incompetence of Safavid kings in Iran, a large number of Iranian physicians resorted to Gurkani kings. Suitable academic environments of Indian royal courts paved the way for some physicians to obtain key posts and enabled them to follow their civilizational contributions there. Some others, despite their medical profession and background, sought their path of success in commerce and thereby, redeemed themselves from poverty and could reach better financial positions. Among these, we can refer to Hakim Elahi Shirazi (Kanbuh, 1967: 493/3-494), Hakim Ein ul-Mulk Shirazi (Bedayuni, 1380: 342), Hakim Ali Guilani (ibid, 226) and finally, Hakim Abulfath Guilani. (Shahnavaz Khan, 1888: 558/2-559) Amongst noteworthy documents on attractions in the Indian royal court, the following elegy composed in eulogy of Jalal al-Din Shah by Meili Herawi, an immigrant poet, clearly clarifies the manners and economic prosperity of the Gurkani kings.

No need for the people to make request of you; each pauper has become Qarun in case of wealth and money, Nonetheless, you are so delighted with the requests of the poor...

As well as two other verses below from Gholi Salim Tehrani also indicate the domestic repulsive forces and attractive forces of India. He says:

Iran is no suitable land for perfection, Henna cannot become colorful unless it comes to India, There is no grief of ageing in the prosperous land of India... (Navayi, 1366: 521; Fendereski, 1385: 6)

Accordingly, we can spot the main reasons for immigration in economic conditions of the source and the target land and military crises as well as social excitements and political problems. The real perception of these scholars of Indian attractions provoked those who

wished to get rid of hardship and insecurity to flee to that land. Iranian Immigrant Physicians in Gurkani Royal Court.

Among the population of Iranian immigrants, a large number of them were noted physicians, well-famed in medicine and wisdom, and played a key role in the academic/scientific progress of Gurkani royal court. Since some of them led an anonymous life, introducing them can help to clarify their academic position or their civilizational role.

The first noted Iranian physician is Masih ul-Din Abulfath, the son of Mowlana Abd ul-Razagh Guilani. Due to his great knowledge and expertise in theoretical wisdom and 'Taale' he was called Hakim. His appointment to special positions such as his long-lasting premiership of Guilan had made him well-experienced in administrative affairs. (Fumani, 1349:127) During the time when Guilan was captured by Shah Tahmasb Safavi in 974, and Khan Ahmad, the governor of Guilan, was imprisoned (ibid, 128), feeling afraid of being killed, arrested or tortured by the Safavids, Hakim immigrated to India with two of his brothers. Due to his capabilities, experience and sophistication in governmental affairs, he soon became one of the companions of the Gurkani king. The available reports and news indicate that he was well respected and well treated in Gurkani royal court. (Shahnavaz khan, 1888: 558/1-560) As reported, he was an outstanding and influential figure in Akbar Shah's royal court. Mowlana Abulfath, due to his virtues, piety, capabilities and merits, gained a high status in the court and was respectfully called for consultations by the king in important affairs, in a way that Akbar Shah did nothing without his advice and consultations. (Chandpuri, 1390: 9) Due to his good temper and his abilities in governmental affairs, he was appointed to the premiership of Gujarat, Malweh and Delhi. He rose through the rank of one thousand in 993.

Of course, his posts were not restricted to these; as in a short time he was appointed to posts of attorneyship, ministry, and medical profession in the royal court. (Ali, Unknown: 5) Spotting his poetic talent and eloquence, because of several reasons, is not easy; however, the fact is that two noted poets of the time, Urfi and Zohoori gained entry into the royal court just because of his support and recommendation. Hakim Abulfath Guilani died as he was coming back

with Akbar Shah from a trip to Kashmir. In the middle of the way, he was afflicted with a disease with symptoms like stomachache and diarrhea which eventually deteriorated his health and caused his death. (Shahnavaz Khan, 1888:562/1)

Another noted Guilani Hakim, who gained fame and reputation in the royal court, was Hakim Ali Guilani. (Bedayuni, 1380: 226; Gurkani, 1359: 74) He was originally from Guilan and the nephew of Hakim ul-Mulk Shams ul-Din. Though his kinship with Hakim Fathullah Shirazi is also proved (Bedayuni, 1380, 335), it seems that, based on some documents, he immigrated to India while he was financially constrained. However, his knowledge of current sciences particularly medicine and mathematics paved his way to the court. (Chandpuri, 1390: 168-169) Based on historical documents, having immigrated to India, he initially settled in Dakan for some years; however, the Gurkani king was soon informed about his intelligence and capabilities, summoned him and appointed him as his private physician and politician of the court. (Alami, 1372: 354-55/3) His new position redeemed him from poverty and prompted him to high positions. Thanks to King's company, he gained the same respect and privilege often donated to governors and high-ranked superiors of the court. Doubtlessly, his expertise particularly in medicine and mathematics, which enabled him to find answers for unresolved issues, and his capability in treating diseases, his eloquence and power of language plus his good temper and decent manners helped him to go up the ladder of success. (Gurkani, 1359: 87) Acknowledging his professional expertise in medicine and mathematics, the author of Ma'aser ul-Umara points out that: " He was truly an expert on sciences, particularly medicine and mathematics." (Shahnavaz Khan, 1888: 568) Furthermore, Jahangir Gurkani in his Tuzak writes about the events of the year 1018 A.H. and makes remarks about his abilities and expertise and states that: " Hakim was an unprecedented person and was an expert on Arabic sciences." (Gurkani, 1359: 335)

According to documents, Akbar Shah was afflicted with high fever and dysentery in 1014, and the physicians could do nothing to cure him, and Hakim Ali was summoned. His complicated disease made Hakim explore the issue for nearly eight days. He did not prescribe any

medicines and expected that the king would naturally recover from illness. However, against his anticipations, this did not happen. After ten days, the common medical treatment was made, again with no good results. The king was severely suffering from the disease and Hakim Ali prescribed a strong anti-purgative medicine. However, the king's general weakness, his old age and the growing pain and purgative re-prescription led to his death, untimely. The wrong treatment was known as the cause of his death and Hakim was accused of incompetence. The pressure and threats on the part of slanderers made him flee. Meanwhile, some began talking against him and horrible and unsubstantiated rumors spread that Hakim had intentionally planned the king's death. There were also rumors that Hakim had been provoked by Jahangir, who had killed Abulfazl Alami and declared independence, to give poison to the late king. The situation got worse with other rumors accusing Hakim of having a role in the death of Abulfazl Khan. Though, apparently such rumors were unsubstantiated (Elgood, 1970: 92), they made historians like Abd ul-Ghader Bedayuni to write against Hakim, in a way that he describes Hakim Ali as a proud and inexperienced person. (Bedayuni, 1380: 335) Such judgments are unfair and ungrounded as many other historians like Jahangir Gurkani and Shahnavaaz Khan not only do not recognize him as inexperienced but also praise his professional expertise in medicine and mathematics. Otherwise, it's highly improbable that Akbar Shah would have selected him for the sensitive job of treating a great person like Allameh Feizi and would have entitled him 'Galen of the time'. Furthermore, by the 40th year of Akbar Shah's sovereign, he had reached the rank of seven hundred in the royal court and had also been appointed to premiership of Bihar province for a while. (Alami, 1372: 357/3) During the reign of Jahangir, he was given the rank of two thousand as well. Although he was never among the superiors, the given positions indicate his fairly good status.

Among other Iranian physicians we can name Hakim Najib ul-Din Homam, the younger brother of Hakim Abulfath Guilani. His name was Humayun. However, when he entered the royal court, he changed his name, out of courtesy, as he didn't want to have the same name as the father of the king. (Chandpuri, 1390: 255) The author of Ma'aser

Rahimi, in his description of Hakim, calls him Najib ul-Din. (Nahavandi, 1366: 475/3) He was extremely gifted in graphology, poetry and its interpretation and was generous in helping people. His presence in the royal court of the rulers and governors and establishing companionship with them were among his gifts.

Hakim held the rank of six hundred in the court and worked for Beigi, the chef. He was in charge of ordering special foods for the king and laying the table. It seems that, unlike others, Hakim Homam did not have any decent administrative position. However, he was highly-ranked in terms of closeness and companionship with the king. Because of his marginal role in administrative affairs, he could not establish name and fame for himself in military and governmental affairs. However, his influence, caused by his high academic position, is undeniable. Court governors and the royal family admitted his medical ability and princes consulted him when needed. Hakim Homam died in Lahore through a two-month fever and was buried in Hosn Abdal, next to his brother. (Chandpuri, 1390: 255-257)

Another noted Iranian physician in the royal court was Hakim Mir Muhammad Hashem, son of Mir Muhammad Ghasem Guilani, also recalled as Hakim Hashem. He settled in holy shrines and learned 'Manghulat' from Sheikh Muhammad Arabi Mohaddes and Sheikh Abdol Rahim Hesani and Molla Ali and learned 'Ma'ghulat' from Mir Nasir al-din Hossein and Mirza Ebrahim Hamedani (ibid, 276) and then travelled to India. While living there, he learned medicine and mathematics and continued his studies in Gujarat. When the king learnt about his knowledge and wisdom, particularly in medicine, appointed him to premiership and medical profession in Ahmad Abad, Gujarat. After that, Hakim Hashem came to the court and as ordered by the king, began teaching to Shahzade (Prince) Orang Zib. Hakim Hashem wrote a commentary on Beizayi Tafsir and ascribed it to Shah Jahan. (Lahori,1967: 345-346) Studying the book, Romuz al-Atebba, authored by Firooz al-Din Lahori, one can see that Mir Muhammad Hashem has written brief commentaries on other great books and has added an appendix to Hedaye al-Hekmah. During the time of Orang Zib, he reached the rank of three thousand and was entitled Masih ul-Zaman. (Chandpuri, 1390: 277) His son, Seyyed Muhammad Ja'far, was one of

the outstanding figures during the reign of Muhammad Shah Gurkan

Another Iranian physician is Hakim Davood Tagharob Khan, son of Enayatullah Mirza Muhammad Valed, student of Hakim Massih ul-Zaman and the trusted physician of Shah Abbas. (Lahori, 1967: 756/1) After the demise of his father, and due to his knowledge and expertise in medicine, he gained the companionship of Shah Abbas. However, during Shah Safi era and out of jealousy of some governors, he was isolated and this isolation lasted till the time of Shah Abbas II. Under such conditions, he went to Basra, with the excuse of going on a pilgrimage, and then travelled to Lahore and gained entry to the court in 1053. In addition to achieving the rank of two thousand and five hundred, he was entitled to receive tips. (Kanbuh, 1967: 402) His skill and knowledge in treating Beigom Saheb, the only daughter of Shah Jahan, made him get promoted and receive great financial prizes. (ibid, 418) Due to his merits, he reached high status during the reign of Shah Jahan. However, during the time of Orang Zib, he was both chastised and isolated. Finally, Orang Zib, during his fifth year of ruling, was afflicted with fever and became severely sick and weak. Hakim was summoned. Though he was unable to treat the king, he became the target of attention once more. (Munshi, 1873: 749) As reported, Hakim died in 1073. (Shahnavaz Khan, 1888: 490/1)

Hakim Sadra, son of Hakim Fakhr ul-Din Shirazi and one of the grandchildren of Hares Ibn Koldeh Saghafi is among well-known immigrants. (Chandpuri, 1390:142) Having finished his formal studies, he became an authority on medicine, like his father. (Lahori, 1967: 347) There, he had also gained mastery on a good number of sciences which he had learnt from Sheikh Bahayee. (Chandpuri, 1390: 143) While he was in Iran, he learnt medicine and science from Hakim Muhammad Bagher and having travelled to India, he continued his education there and won great fame during the time of Jahangir Khan, reaching the rank of five hundred and was entitled Masih ul-Zaman Khan (Kanbuh, 1967: 393/3-394), which was a great privilege for him. (Gurkani, 1359: 75) Among his other characteristics, we can refer to his religious personality. (Lahori, 1967: 75) Thanks to his knowledge and faith, Hakim Sadra was highly respected in the royal court. This respect added to his modesty even more. When Jahangir was overtaken by pain

in 1030 and other physicians were unable to cure him and as he said: "The time when everyone sympathized with me," Gurkani, 1359: 340) Hakim was summoned, yet he modestly said: "I cannot trust my knowledge and abilities to heal you." (ibid, 340)

This modesty added to his dignity in the court, in a way that in 1044 when he sought the king's permission to go on pilgrimage, not only was he permitted but also he was granted 20000 Rupees. (ibid, 342-343) Having returned from his pilgrimage, he was appointed as the ruler of Surt and Geon and reached the rank of three thousand. (Aslam Khan, 1364:1752/4-1753) Sadra was a twelve Imam believer (Chandpuri, 1390: 148-149), and the other co-believers followed him. He worked hard for piety and purity. Due to his religious beliefs, he resigned from his career and settled down in Lahore and continued a comfortable life there. During summers, he visited Kashmir and when necessary he was summoned to the court. His poetic, literary knack has been mentioned too. He used 'Elahi' as his pen name. (Lahori, 1967: 348/1) His poems attracted the attention of the king and Hakim was frequently admired by him.

His attempts in treating the burn of Sahebeh Beigom, daughter of Jahangir, added to his respect, and a higher annual salary was given to him. (Kanbuh, 1967: 418) He spent the last years of his life in Lahore and Kashmir and passed away there. (Chandpuri, 1390: 149)

Amongst well-known immigrant physicians from Shiraz is Hakim Saleh Shirazi (1083), son of Hakim Fathullah Shirazi. (Kanbuh, 1967: 395/3) He lived at the time of Orang Zib. Receiving valuable gifts and presents from the Gurkani Shah as well as holding prestigious posts indicate his outstanding status in the Indian court. (Munshi, 1873: 249 & 404) His father, Hakim Fathullah, son of Hakim Abulghasem Shirazi and grandson of Hakim Fathullah Guilani, was among well-famed Shirazi physicians residing in Indian court. His academic fame has been reflected in documents. Hakim Fathullah, initially began his medical training with Imam Gholi Khan, father of Allah Verdi Khan, the ruler of Fars. When Imam Gholi moved to the royal court, Seyyed Fathullah travelled to India and continued his profession there. His skill and ability in treating incurable diseases won fame for him in the royal court. (Lahori, 1967: 350) Being appointed to superior positions, and

receiving salary and prizes were among privileges given to him. (Kanbuh, 1967: 403/3) After the death of Hakim Fathullah, his posts, including the title of Khafi and the rank of one thousand were transmitted to his son, Hakim Saleh. (ibid, 395/3)

Within the list of Iranian immigrants is the name of Hakim Jalal al-Din Ardestani. During his youth, he was the physician of Shah Tahmasb. This verse ascribed to Tahmasb indicates his expertise and ability in medicine, "A good doctor he is, let's all get sick." (Gurkani, 1359: 60) He received the rank of two hundred at the time of Akbar. (Alami, 1893: 185) Hakim was alive during the reign of Jahangir. Although we cannot clearly discern the posts given to him at that time, it is obvious that Jahangir trusted him completely and respected him. (Gurkani, 1359: 63) Hakim, in addition to holding companionship and medical profession, was good at managing country affairs and resided in the court of Jahangir in Allah Abad for years. He suffered from tuberculosis for twenty years. Jahangir regularly asked him why he, despite being a skilled physician, did not treat himself and Hakim always replied that the lung sore is incurable. Finally, he died from this disease in 1015 and was buried by Ghelich Khan, Lahore governor. (ibid, 60)

Another well-famed Shirazi physician is Hakim Ein ul-mulk Shirazi. From mother's side, his lineage reached Mohaghegh Dawani. He commenced his profession at the time of Akbar Shah Gurkani. According to available documents, he was with the King both during the war and pleasure and was considered as his trusted physician and ophthalmologist. His ability in surgery cannot be overlooked. The author of Ma'aser ul-Umara writes about him that: "He was a scientifically distinguished man." (Shahnavaz Khan, 1888: 562/1) His success in bringing out an arrow shot to king's shoulder added to his fame. (Elgood, 1970: 90-91) Hakim also showed his valor in battles and exhibited his statesmanship. He held the rank of five hundred in the army. Based on reports made by Alami, the historian in the court of Akbar Shah, no other physicians could compete with him. (Alami, 1372: 184/3) His expertise in counseling made the king consult him about country affairs frequently. His tact in suppressing the rebellions of Ahmad Abad, Bichapoor and Sambhal made the king appoint him as

the governor of Bengal. Having gone to pay a visit to Rajeh Ali Khan, as an ambassador, Hakim Ein ul-Mulk got sick on the way back home and died in 1003. (Bedayuni, 1380: 276) He also composed poetry and had adopted 'Dawayi' as his pen name. (Shahnavaz Khan, 1888: 563)

Hakim Yusuf Ibn Muhammad Ibn Yusuf Herawi, who adopted the name 'Yusufi', was among the famous physicians of the 10th century. He was originally from Khaf and did his studies in Transoxiana. He spent a good part of his life in Herat and during the last years of his life, apparently afraid of Ghezelbash attacks, fled to India with his father and resided in the court of Zahir al-Din Baber and Humayun. Alami, one of the famous historians of Gurkani court, counts him as one of the men of respect and dignity at the time of Baber and says: "The king summoned Yusufi, the physician from Khorasan. He was a man of virtues and great dignity and was well respected." (Alami, 1372: 119/1) His fame was even more than his father. Some books are ascribed to him. He was also a poet and has composed some versified stories to ease the knowledge of dentistry. While living in Herat, he authored the book, Jame al-Favayed (Yusufi medicine) in 913, which includes 289 quatrains about symptoms of diseases and their cures. (Safavi, 1352: 160) He was also a pioneer in setting precedents in royal court which will be referred to in another section.

Muhammad Hashim Khan is another physician, also named as Alavi Khan. His father is Hakim Muhammad Hadi Khan was one of the descendants of Mohammad Hanafiyeh. (Chandpuri, 1390: 273) He was born in 1080 in Shiraz and studied there. In 1111 and because of incongruity of his wishes and goals with Shiraz environment, he moved to India (Elgood, 1970: 103), during the final days of Orang Zib's government and worked there for years.

After the death of Orang Zib, there was conflict among his sons over his succession and finally Moazem Shah entitled as Bahador Shah came to throne. Although Hakim Muhammad Hashem was affiliated with Azam Shah Government, he was still well-respected during the reign of Bahador Shah (Shah Alam) and he was entitled Alavi Khan by him. During the reign of Muhammad Shah he proved himself as a successful physician and was selected as his private physician. Shah gave silver to him as much as his weight, and determined the rank of

six hundred for him and entitled him Mo'tamed ul-mulk. (Chandpuri, 1390: 274) During these years, Nadar Shah attacked Indian Gurkani and after the collapse of the Safavid dynasty and banishing the Afghans in 1151, Nader moved to Delhi and conquered it. While returning from India, Nader, who was not physically well and was suffering from ulcer and swollen feet, appointed Alavi Khan as his physician. Hakim Muhammad Hashem succeeded at treating him and Nader requested to return to Iran with him, and he did so. Nader also brought back many other craftsmen to Iran. (Lokhart, 1357: 198) Nader arrived in Qazvin within two years, and during this period the treatments made by Alavi Khan were so effective that he made a full recovery. So when Hakim requested to leave, his request was not declined and Alavi Khan returned to India. Because of his great services and contributions, he was entitled Mo'tamed ul-Mulk and later as Baha' ul-Duleh. He finally died in 1160 in Delhi. What can be understood is that the current medical fame of Sharifi lineage in Delhi is because of his attempts. (Elgood, 1970: 275) A number of documents and compositions in medicine are ascribed to him. Among these editors is Hakim Hossein Khan, the nephew of Alavi Khan and the composer of Great Gharabadin.

Although there are so many Iranian physicians immigrated to India, we managed to present only few of the most influential ones. A glance over the whole list shows the majority of them were from Shiraz, some from Guilan and a few from other cities.

Immigrant Physicians and Expansion of Medical Science in Gurkani Royal Court

The presence of Iranian physicians in Indian royal courts was quite beneficial in transmitting Iranian culture, development of medical science and Indian physicians, invention of new approaches and the like. Below you can find some of these achievements:

There is a list containing the attempts made by Iranian physicians in Indian royal court; the most important ones are summarized here. One of these is awakening about tobacco harms in which we can trace the impacts of Iranian physicians like Hakim Abulfath Guilani on shaping the ideas held by Indian men of power about tobacco.

Hakim Abulfath's effective action resides in his powerful command. (Chandpuri, 1390: 17) As mentioned by documents, after Mirza Asad Beik brought the king the tobacco and hookah he had received from Bijar, and Akbar Shah used them, the king commanded Hakim Abulfath to search about the medical properties of tobacco. Hakim then reported that nothing has already been mentioned in medical books and the issue has not been studied. He added that, from his point of view, its use was not appropriate for the king. Asad Beik who had been debating with Hakim for a long time and referred to researches conducted by foreign physicians asserted that foreign physicians have proved its benefits and they are not so silly to consume it without prior investigations, and they should not issue a quick command. Hakim stated: "We do not want to imitate the foreigners, and Asad Beik has failed to convince Amir al-Hokama." The debate ended with King's intervention. Although governors became interested in tobacco in no time, the Gurkani king held so much faith in what Hakim had said that he abandoned it personally.

Hakim Abulfath could discern the harmful effects of tobacco and stated that this is a pleasant and energizing material, however, its smoke is dangerous. In fact, Hakim Abulfath had discovered the poisonous nature of nicotine and its harms and believed that in addition to nicotine, there is a special kind of oil in tobacco's smoke that can be dangerous while it remains in the water pipe. (Chandpuri, 1390: 17-18) Jahangir Khan, in his Tuzak, has emphasized on the same issues and says: "Due to its harm and danger for various temperaments, I commanded that no one approach it." (Gurkani, 1359: 211) His contributions are not limited to this. His main work in medicine named as Fatahi, written as commentary on Ghanoonche has proved effective in the development of medical science in India. (Chandpuri, 1390: 21)

Among other pioneering actions, we can refer to contributions made by Hakim Ein ul-Mulk Shirazi. He was one of the innovators of issuing medical certificate. This certification became necessary for those employees who were off work because of an illness. Though, initially, accepting this certificate was difficult for the King, gradually he approved of it and during the time of Akbar Shah, such medical certificates were widely used. (Alami, 1372: 97/1-99)

Furthermore, Hakim Ein ul-Mulk Shirazi, due to his medical expertise, became one of the pioneers of treating chronic diseases. In 971 he succeeded at healing the deep wound of Akbar caused in an attempted murder. (Azad Bilgrami, 1913:242/1) He was also quite skillful in eye surgery. His main book in this field is *Ziya al-Oyun*. (Chandpuri, 1390: 189) Among his other influential works in medicine we can refer to *Alfaz al-adviyeh*, written in 1093 and ascribed to Shah Jahan. This is a unique Persian book in medicine and general therapy which has also been re-printed several times in India. (Elgood, 1386: 420)

His other main book, *Al-fozool al-adviyeh*, is of great fame which qualitatively equals with *Canon of Avicenna* and *Zakhireh Kharazmshahi* of Seyyed Esmael Jorjani. (ibid, 420) It is a comprehensive book and contains Iranian, Indian and Arabic medical information, developments and activities of the physicians at the time of Akbar Shah, Jahangir Shah and Shah Jahan. The name of the book refers to Dara Shokooch, son of Shah Jahan who was on the throne before his being killed by Orang Zib. (Khafi, 1869: 9-10/2) His attempts and contributions for developing science and literature are noteworthy. Dara Shokooch's supports from Iranian immigrant physicians particularly Hakim Ein ul-Mulk made Hakim use his name for his best medical book. For long, some wrongly assumed Dara Shokooch to be the author of the book. However, his medical knowledge has not been confirmed by historians, and the variety of chapters included indicates that the book must have been authored by Ein ul-Mulk, and he has titled it as *Dar al-Shokooch*, Out of his devotion. (Elgood, 1386: 421) The main features of the book are its encyclopedic arrangement (Elgood, 1970:100-101) illustrations and comprehensiveness of information, therapies and treatments. Furthermore, the extensiveness of medical information indicates the knowledge and expertise of the author. One can find detailed information about anatomy, natural environment, biology and six-level necessities, and full descriptions about anatomy and physiology as well as the names of drugs and diseases and the treatments often applied by physicians and good information about bone breakage and dislocation, poisons and poisonings, kids' diseases and illnesses caused by childbirth and syphilis which all reveal his vast knowledge. Another reason for the

ascription of the book is its frequent references to Emad ul-Din Shirazi for presenting medical information.

Iranian physicians were well-famed in medicine and wisdom. (Bedayuni, 1380:226; Gurkani, 1359: 74) They were invited for their expertise in diagnosis, prescriptions and treatments. (Chandpuri, 1390: 170; Sarmadi, 1378: 87/2) Their mastery of Indian language and vast information about technical medical terms added to their popularity and influence. Furthermore, their presence led to production and publication of valuable medical works in the Indian court; one of these is a commentary on The Canon of Medicine by Avicenna, authored by Hakim Ali Guilani. (Chandpuri, 1390: 185) His other important book is Mujarreat, in which he talks about his medical innovation of making 'Divdar ointment or palm'. This ointment was used for bruise, muscle pains and arthritis. His innovation in making this ointment has been proved by other physicians and it has been used widely both in the past (ibid, 134; Vaseti, 1353: 44) and present time in India. (Foroohi, 1367: 313/2-315) His other invention was establishing medical office. This invention was patented by him. (Chandpuri, 1390: 156) Objection to taking blood from vein, even when demanded, has been patented by Hakim Jalal al-Din Ardestani. (ibid, 68)

The medical contributions of Hakim Davood Tagharob Khan in the royal court are also significant. Among these are: taking advantage of cool medicines like camphor and pickles for burn wounds, prescribing Ma'al-Helm for heart conditioning, cumin-seed for dysentery, green chicory and a mixture for pain in backbone and the swell caused by it (ibid, 102), and prescription of cotoneaster for upset stomach (ibid, 104) and diuretics for upset stomach and urine problems.

Preparing versified medical collections by Hakim Yusufi Herawi is one of the innovations of Iranian physicians which triggered further changes in medicine. As well as easing the knowledge of medicine and accelerating the speed of treatment, it was effective in technicizing and disseminating technical terminologies. One of these famous poetry books is Alaaj al-Amraz (cure of diseases) which contains 289 quatrains about symptoms and their treatments. Another poetry book is Jame al-Favayed by Hakim Herawi. This book was composed in 917 and contains explanations about diseases like rabies first in prose and

then in poetry. Using ashes of vine and vinegar for rabies has been suggested by him. (Yusufi Herawi, optical version of Jame al-Favayed: 57-59) He, in his book, Seta Zarooriye, has recommended six necessary actions that need to be considered for health to Humayun Shah and has talked around issues such as weather, food, hygiene, comfort, sleep and the like. His other book is a versified treatise, Ma'kool va Mashroob (Food and Drink), in which he gives suggestions about what should be eaten or drunk.

Furthermore, his Dalayel al-Nabz is about various types of pulses which can be used in diagnosing diseases or his treatise Dalayel al-Bul is on urology and diagnosing diseases through testing the urine. Along with a treatise on health of body, an ode containing 54 verses has been composed for Mohammad Baber, in which he has composed poems about healthy foods and drinks, sleeping and wakening in different seasons and climates. He also has poems about choleric weather in his Moghatta'at_a versified treatise in which he mentions the properties of medicinal plants. (Owhadi Belyani, Manuscript: 815-816; Savafi, 1352: 160) It is one of his great works of science.

The scientific works of Hakim Muhammad Hashem Shirazi in medicine have contributed to improvement of this field in the royal court. Works like Jame al-Jawame about kidney and urinary system diseases and the book Ahwal Azaye Nafs about respiratory system and the book Anbiyat about plants or the book Alaj al-Amraz are among his main works. (Bagchi, 1987: 103-110)

In the end, we can conclude that the main achievement of Iranian physicians in the royal court was disseminating Persian and Arabic medical terminologies: disseminating and unifying terms used for diseases such as small-pox, Syphilis, headache, stomachache, rabies, diarrhea and vomiting, cholera, itching, bloat, cold, disseminating Iranian names for medicinal plants among Indians like prune, plum, damson, guava, pomegranate, fig, almond and its leaf, anise, fennel, plane-tree leaf, beet, rock candy, cumin, marrow, lettuce, raisin, pistachio, scammony, tobacco, citron, jasmine, disseminating Iranian medical terms for words like malady, medicine, pharmacist, physician, cure, treatment, surgeon, patient, health, doctor, medicine profession, care, sore and the like, and disseminating Iranian terms for body organs

including tooth, nose, throat, blood, stomach, brain, limb, hand, nail, breast, tongue and the like are among their achievements. (Ahmad, 1941: 147-150)

Civilizational Influence of Iranian Immigrant Physicians in Gurkani Royal Court

Historical surveys show that the immigration of Iranian physicians has also proved effective in political and civilizational domains like agriculture, craft, architecture, as well as scientific domains. Physicians like Amir Fathullah Shirazi, Hakim Abulfath Guilani, Hakim Najib ul-Din Homam, Feizi, Nezam ul-Din Bakhshi and Raja Tudermel were among the legislators in the parliament of Akbar Shah. This forum had defined some principles and accurate rules of accounting to be observed by counseling offices. Based on these rules, all accountants had to obey the law so that there would be no differences in their writings. (Alami, 1893: 75/1-76) Among physicians in Gurkani royal court who also played a political role was Hakim Ein ul-Mulk Shirazi. He played an effective role in settling political conflicts. Because of his expertise, he was in charge of political prisoners. In an important case, he was put in charge of Haj Ebrahim Sarhendi. After his deposal from Gujarat premiership and while escaping to his women's harem in Dakan in 989, he was arrested with the bribes he had taken, and as commanded by the king, was delivered to Ein ul-Mulk. (Bedayuni, 1380: 342/3)

In his administrative data sheet, as well as medical profession, ambassadorial post has been mentioned. In many occasions, he was responsible for passing on messages and letters from Akbar Shah to Gujarat governors and commanders in East of India. His appointment as the commander of the Army of Sanbhal in the 26th year of Akbar's accession to the throne and his suppression of the rebellion of Bahador and Nayabat Khan show his political and military capabilities. (Alami, 1372: 184/3) Among other ambassadors, we can see the name of Hakim Ali Guilani. He was sent from the government to Ali Adel Shah, the ruler of Bijar. (Bedayuni, 1380: 226/3) He welcomed him with open arms and respectfully brought him to the city. However, in the same year, 998, Ali Adel Shah was murdered. While the author of Fereshte History has reported that: " Hakim received valuable gifts from Ali

Adel Shah and returned before his death," (Hendu shah Astarabadi, 1248: 127/3-128) Alami states that the death of Adel Shah coincided with Hakim Ali's ambassadorship. (Alami, 1372: 261/3) However, it seems that Hakim left Bijar at designated time.

Among other physicians who also played active roles in politics is Hakim Fathullah Shirazi. He was appointed as prime minister in Gurkani court in 1006 and after that he was entitled Azod ul-Duleh, a title often dedicated to Abbasid viziers. Hakim Fathullah as the prime minister did great reforms, including passing a law for financial corruptions of clergymen, judges, preventable actions for illegal land ownership and serious attempts for enforcing these laws. He, as the main ambassador of Akbar Shah, was in charge of important diplomatic errands, and due to such activities, he was entitled Amin ul-Mulk during Akbar Shah's third year of ruling and was appointed to ministry of finance. (ibid, 1893: 35/1)

Another political physician was Hakim Abulfath Guilani. He was appointed to posts of ministry and attorneyship and acted as the supervisor of the Supreme Court which was the most important political court. (Shahnavaz Khan, 1888: 558/2-559) Hakim Sadr ul-Din Shirazi (Elahi Shirazi) was the governor of Surtport in Gujarat. The documents show that his active political participation in Indian royal court affairs was because of his intelligence and astuteness.

Some other physicians, due to their profession and because of close connections between medicine profession and medicinal plants were involved in finding medicinal plants for treating diseases. The vast Indian land with its suitable climate, which helped the production and growth of plants, was among the centers of production of medicinal plants. Historical information reveals that Iranian physicians through transmitting Iranian medical knowledge to Indian royal court succeeded at integrating Iranian medicines with Indian-Arabic medicines, and this eventually led to development of Indian medical plant knowledge. Wise actions of Hakim Davood Tagharob Khan in developing the fields of agriculture and gardening and his success at planting medicinal plants like rhubarb have been notified. (Lahori, 1967: 593/2)

Furthermore, the impact of Iranians on Indian architecture and developing the knowledge of building construction has been notified in

several periods of interactions among Iranians and Indians. Based on available historical evidence, one can admit that there were a number of physicians engaged in house building and architecture. The presence of Hakim Ali Guilani, the famous Iranian physician can indicate this. In 1002 and during the 39th year of Akbar Shah's ruling, he built a very strange pond in Lahore with the length of 20 gazes, width of 20 gazes and depth of 3 gazes, (Chandpuri, 1390: 173) though Jahangir had demanded the length and width of 6 gazes for it. (Gurkani, 1359: 87) There was a stone-made room in the middle of the pond with a high minaret located on top of it. There were bridges in four corners of the stone. The gates of the room were open but water did not penetrate into it. Gurkani Shah who was very interested in watching such constructions came to Lahore. (Alami, 1372: 687/3) He looked quite excited as he entered the room. The beauty of the room had created a light and comfortable atmosphere. The room was as spacious as 12 persons and had facilities like places for eating, sleeping or changing clothes. The building had been constructed in a way that no water penetrated into the room. Since they had to pass a water channel to enter the room, the king went inside the water and it lasted him some minutes to come out. His companions felt quite frightened until he finally came out. (ibid, 688/3)

The pond was located in Lahore, but Jahangir in his Tuzak (Jahangir-nameh) points out that a similar pond had also been constructed by Hakim Ali in Agra. (Gurkani, 1359: 87) There are some reports about the participation and supervision of other Iranian physicians in constructing buildings and mosques, which cannot be overlooked. (Alami, 1372: 184/3)

Another Iranian physician who is known as an industrial engineer is Hakim Fathullah Shirazi. He was one of the most famous engineers of his time. Some of his actions are: construction of a bar mill that moved by the power of wind and crushed the grains quite well, construction of a mirror that showed near and distant things in strange ways, invention of a war castle-devastating bomb and a wheel which could carry twelve bombs, invention of a gun that could shoot twelve bullets in each shot, and the like. (Shahnavaz Khan, 1888: 104/1; Nezam ul-Din Ahmad, 1911: 126/2, 368, 394)

Along other noteworthy activities, one of the lasting contributions made by Iranian physicians was authoring scientific works in historiography. Historians like Hakim Fathullah Shirazi and Hakim Homam Guilani and Hakim Ali Guilani participated in the preparation of *Alfi History*. (Bedayuni, 1380: 318/2) *Alfi History* contains sections written by Hakim Fathullah Shirazi about the demise of the Prophet and detailed information about the second year of Abu Bakr Ibn Ghahafe. (Tatawi& Qazvini, 1378: 15-45) He has taken advantage of several historical documents. His language is simple yet sophisticated, and literary terms do not overshadow the literal meanings. This section, like the whole book, is easy to read.

Among the works of Hakim Muhammad Ali Shirazi the book, *Heidarabad Newspaper* is of great importance. This book explains Orang Zib's wars with the ruler of Golkandeh Castle in 1098, and all capturing events have been arranged chronologically. The good advantage of the book is the writer's sense of humor. Seemingly, this sense of humor has not been common in Persian historiography in India, and Ali Shirazi was the first person who introduced it to Indian historiography. Shirazi provides the readers with valuable and accurate information about Golkandeh War in 1098 and Orang Zip's commanders. (Aftab, 1364: 512-514)

Preparing calendar was among other contributions of Iranian physicians. Hakim Fathullah Shirazi attempted for innovating a divine history in the royal court of Akbar Shah, which can confirm his contributing role. Religious pluralism in India had made Akbar Shah attempt for a unified nation. After the invention of a divine faith, he could organize the miscellaneous social and religious structures of the society. Changing the calendar was the first step for confirming this new faith. He believed that the lunar calendar was outdated and not suitable for India. So he made Hakim Fathullah Shirazi invent a new divine calendar and ordered that it has to be used in all provinces. In the divine calendar, his year of coming to the throne was the starting point and it was based on Gurkani new 'Zij' (Ulugh Beig). Furthermore, in this calendar, the number of days and solar months were genuine and there was no leap year. However, the names of months and days, influenced by integration of Iranian and Indian, had remained intact.

(Shahnavaz Khan, 1888: 104/1; Alami, 1372: 9-10/2; Bedayuni, 1380: 145/3; Razi, 1378: 234-235/1) Mirza Muhammad Ali Shirazi, as well as being engaged in medical profession, was quite good at poetry and composing satires. He was an authority on beautiful and pleasant satires.

He used various scientific and technical terminologies so often that even if his satires turned into facetious sayings, they were still aesthetically pleasant, both in poetry and prose. (Chandpuri, 1390: 156) A good example of it is composition of Hokama Satire by Mirza Muhammad Ali Shirazi. His other works in different subjects are: Jang-nameh, Khan-e Ne'mat, Divan-e Ali, Rahat ul-Gholub, Hosn and Eshgh treatise, Raghaat and Mozhakaat, Sokhan Ali, Manshoorat Ali, Ne'mat-e Ozma. (Aftab, 1364: 512-513)

Another Iranian physician, Hakim Ein ul-Mulk Shirazi, has composed famous pieces of poetry. He adopted 'Dawayi' as his pen name and some sources like Ma'aser ul-Umara have referred to his verses. (Shahnavaz Khan, 1888: 563/1)

It seems that Iranian physicians have been engaged in exegesis of the Quran. The commentary written by Hakim Fathullah Shirazi confirms this. Furthermore, some state that exegesis 'Menhaj al-Sadeghin' of Molla Fathullah Kashani has been authored by Fathullah Shirazi and Hakim has shortened the title to Al-Menhaj. He has also written a treatise on wonders of Kashmir, which Alami, upon the command of Akbar Shah, included it in Akbar-nameh. He has also written another book about Akbar Shah, named Eghbal-nameh Akbari, which is not available. Hakim Fathullah Shirazi expanded wisdom in Indian royal court and was good at nullifying magic and earth gravity. (Ali, unknown: 160)

Hakim Fathullah Shirazi has also written another book, Ghiyase which is a commentary on Akhlagh-e Naseri. In this book, he attempts to prove the mentioned philosophical issues and compare them with the Quranic verses and sayings. His book, Charbaghi, consists of his letters and writings. Most of these letters were written to Hakim Homam, Abulfazl Gholami and Khan Khanan. Hakim has also elaborated on his beliefs about wisdom. (Chandpuri, 1390: 21)

At the end, we should mention that Abulfath Guilani played an active role in attracting Iranian elites and encouraging them for immigration to India. For example, Hakim Mohammad Nafis Guilani came to India upon his guidance and support and worked for him for fifteen years. (Nahavandi, 1366: 266) Hayati Guilani (Bedayuni, 1380: 219/3-220) and Ghazi Noorullah Shooshtari were introduced to the Gurkani king by him. (ibid, 137/3-138) Hakim also brought Urfi Shirazi to Akbar royal court, where he won high ranks. (Navayi, 1366: 510) Urfi has also composed a long poem in eulogy of Hakim Abulfath Guilani. (Shamim, 1349: 58)

Conclusions

The present study on immigration of Iranians to India reveals that the most effective roles had been played by elites, particularly those in medical profession. The results of investigations about the process, the way and the reasons for which Iranian physicians immigrated to India are as follows:

Both repulsive and attractive forces were effective in immigration of Iranian physicians.

A good number of Iranian physicians were from Guilan, Shiraz and Kashan.

Academic progress in Gurkani royal court was the result of presence of Iranian elite. The study showed that quite similar to medical writings which helped the development of Indian medical science, literary works helped dissemination of Iranian ideologies among Indians too.

The presence of Iranian physicians in Gurkani royal court organized their medical system and scientific contributions. With supports of Gurkani kings, Iranian physicians succeeded at demonstrating their academic and professional capabilities.

Iranian physicians, in addition to protecting the health of rulers, played an active role in political and governmental affairs. The presence of Iranian physicians beside the commanders indicates the complete confidence the rulers had in them.

Medical work of Iranian physicians including comprehensive medical books written in the same style of Avicenna's Canon went beyond ordinary treatise.

Gurkani kings like Baber, Humayun, Akbar, Jahangir and Shah Jahan were interested in knowledge and art and had complete confidence in Iranian physicians of the court and followed their recommendations carefully. For example, Akbar Shah, upon the recommendation of Fathullah Guilani, gave up using tobacco, while other members of the court used it.

Expansion of Iranian culture to the northern part of India, which can still be seen, happened as a result of immigration of Iranians. These people fled to India in hope of more comfortable lives and laid the foundations of an integrative civilization in that land. The presence of integrated medicine, architecture and literature confirms this.

Archive of SID

References

- 1- Afooshehyi Natanzi, Muhammad Ibn Hedayatollah. **Neghaava al-Asar**. Contributed by Ehsan Eshraghi, Tehran: Centre of Translation and Publication, 1350.
- 2-Aftab, Asghar. **Persian Historiography in India and Pakistan**. Lahore: Cultural Centre of Islamic Republic of Iran, 1364.
- 3-Ahmad Z.A. **National Language for India**. Allah Abad, 1941.
- 4-Alami, Abulfazl. **Ain Akbari**. Lakhano: Matba' Monshi Nolkshur, 1893.
- 5-Ibid. **Akbar-nameh**. Tehran: Institute for Research and Cultural Studies, 1372.
- 6-Ali, Ahmad. **Indian Elites**. Lakhano: Matba' Monshi Nolkshur, unknown.
- 7-Aslam Khan, Muhammad. **Tazkereh Shoara-e Kashmir**. Edited by Seyyed Hesam ul-Din Rashedi, Karachi: Eghbal Academy, 1364.
- 8-Azad Bilgrami, Mir Ghulam Ali. **Sarv-e-Azad**. Lahore: unknown, 1913.
- 9-Bagchi.A.K. **Medicine in Medieval India**, 11th to 18th Centuries. New Delhi, 1987.
- 10-Bedayuni, Abd ul-Ghader. **Montakhab al-Tawarikh**. Edited by Mowlavi Ahmad Ali Saheb, Tehran: Society for the Appreciation of Cultural Works and Dignitaries, 1380.
- 11-Chandpuri, Seyyed Kausar Ali. **Mogul's Physicians**. Translated by Seyyedeh Jalileh Shahidi, Tehran: Research Institute for Islamic & Complementary Medicine, 1390.
- 12-Elgood Cyril. **Safavid Medical Practice**. London, 1970.
- 13-Ibid. **Iranian Medical History**. Translated by Dr. Baher Forghani, Tehran: Amir Kabir Publication, 1386.
- 14-Fendereski, Mir Abul-Ghasem. **Jug Basshet**. Edited, researched, and translated by Seyyed Fathullah Mojtabayi, Tehran: Iranian Institute of Philosophy and Wisdom, 1385.
- 15-Foroohi, Ali. **Guilan-nameh**, 'Guilani Physicians in Indian Mogul King's Royal Court'. Rasht: Nashr-e Guilan, 1367.
- 16-Fumani, Abd ul-Fattah. **Guilan History**. Edited by Manuchehr Sotudeh, Tehran: Cultural foundation of Iran Publication, 1349.

17-Ghodusi, Muhammad Hossein. **Nader-nameh**. Mashhad: Society of Khorasan National Works, 1339.

18-Gurkani, Noor al-Din Jahangir. **Jahangir-nameh 'Tuzak Jahangiri'**. With collaboration of Muhammad Hashem, Tehran: Cultural Foundation of Iran Publication, 1359.

19-Hindu Shah Astarabadi, Muhammad Ghasem. **Fereshte History**. Mumbai, 1248, Tehran University Central Library, No. 936.

20-Ibid. **Fereshte History**. Edited by Dr. Muhammad Reza Nasiri, Tehran: Society for the Appreciation of Cultural Works and Dignitaries, 1388.

21-Kanbuh, Muhammad Saleh. **Shah Jahan-nameh (Amal-e Saleh)**. Edited by Vahid Ghoreishi and organized by Gholam Yazdani, Lahore: Majlis Taraghi Adab, 1967.

22-Khafi, Muhammad Hashem Khan. **Montakhab ul-Lubab**. Contributed by Kabir ul-Din & Gholam Ghader, Kolkata: Asiatic Society of Bengal, 1869.

23-Lahori, Abd ul-Hamid. **Padeshah-nameh**. Bengal: Asian Society Publication, 1967.

24-Lockhart, Laurence. **Nader Shah**. Translated by Mushfegh Hamedani, Tehran: Amir Kabir Publication, 1357.

25-Munshi, Iskandar Beik. **Abbasid Alam Ara History**. Edited by Muhammad Ismael Rezvani, Tehran: Book World, 1377.

26-Munshi, Muhammad Kazem. **Alamgir-nameh**. Kolkata: Indica Biblioteque, 1377.

27-Muntasab Mojabi, Hassan. **Study on Shiite Medicine in Medicine History**. Kermanshah: Razi University, 1385.

28-Nahavandi, Abd ul-Baghi. **Ma'aser Rahimi**. Edited by Abd ul-Hossein Navayi, Tehran: Society for the Appreciation of Cultural Works and Dignitaries, 1366.

29-Navayi, Abd ul-Hossein. **Iran and the World**. Tehran: Homa Publication, 1366.

30-Nezam ul-Din Ahmad. **Tabaghat Akbari**. Edited by Muhammad Hedayat Hossein, Kolkata: unknown, 1911.

31-Owhadi Belyani, Taghi al-Din. **Arafat al-Asheghin**. Tehran, Manuscript of Malek Library, No. 5324.

32-Razi, Amin Ahmad. **Tazkereh Haft Iqlim**. Edited by Seyyed Muhammad Reza Taheri, Tehran: Soroush Publication, 1378.

33-Safavi, Sam Mira. **Tohfe-ye Sami**. Contributed by Hassan Vahid Dastgerdi, Tehran: Forughi, 1352.

34-Sarmadi, Mohammad Taghi. **A Research on the History of World Medicine and Treatment: up to the Present Era**. Tehran, Sarmadi Publication, 1378.

35-Shahnavaz Khan, Samsam ul-Duleh. **Ma'aser ul-Umara**. Edited by Mowlavi Abd ul-Rahim, Kolkata: unknown, 1888.

36-Shamim, Mozaffar Hossein. **Persian Poetry in India and Pakistan**. Karachi: Iqbal Publication, 1349.

37-Tatawi, Ghazi Ahmad, Asef Khan Qazvini. **Tarikh-e Alfi**. With collaboration of Seyyed Ali Al-e Davood, Tehran: Kolbeh&Fekr-e Ruz Publication, 1378.

38-Vaseti, Nayer. **History of Medical Relations of Iran and Pakistan**. Islam Abad: Persian Researches of Iran and Pakistan Publication, 1353.

39-Yusufi Herawi, Yusuf Ibn Muhammad Ibn Yusuf. **Jame al-Favayed**. Tehran: Medical History Researches Institute, Optical version.