

ORIGINAL ARTICLE


The History of First Modern Pharmacies Founded in Iran

Abstract

Ancient Iranians are among the nations well aware of the therapeutic effects of herbs, and hence pharmacology, even though no written scientific text is left giving witness to this. However, in mythical as well as ancient stories, one can find traces of the familiarity of ancient people with medicine and treatment. However, after the emergence of Islam (6 A.D.), numerous textbooks on the pharmacy science (pharmaceutical science) are available. These texts, along with other historical and literary texts, encompass traces testifying the existence of such traditional pharmacies. Such pharmacies were in practice till mid-19th century when the first medical school was launched. At this time, mainly due to the familiarity of Naseredin Shah, (the King), with medical improvement in Europe, the first modern medical school was established in Iran. A French doctor, Dr. Focquette, as the first pharmacy teacher, started working in this school. This was followed by the effort made by Albert Scheverin, a Dutchman, to found the first modern pharmacy in Tehran, in 1882, providing people with chemical medicine. The present study aimed at giving a report on the history of medicine and pharmacy in Iran, followed by the reports of the first modern pharmacies founded in Iran.

Key words: Pharmaceutical Services, Pharmacy, Modern pharmacies, Pharmacy teacher, Iran, Attari

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Introduction

Pharmacy, along with medicine, has always been the focus of attention for Iranian people. The word medicine, in Persian language, is 'daroo', derived from the word 'dar', which literary means tree. Iranians have been not only familiar with medicinal herbs, but also quite familiar with medicinal properties of minerals and food and used this knowledge to treat patients.¹ In Iranian mythical stories, e.g. there is a mythical tree (VISPOBISH- *vispo* means all and *bish* means pain) which has been considered as a Panacea; It is written in Avesta, the religious book of Zoroastrian, that the tree contains the medications of all pains and the seeds of all plants in the world.² Dinkart, one of the Zoroastrian texts, around 3000 years ago, e.g., discussed about the medicinal properties of herbs and minerals; Or Borzouyeh, the physician, (Sassanian Era 224-651) in order to find a special kind of medicine, travelled to India. Also, in certain pre-Islamic texts, we encounter a tree called 'Tooba', having certain features such as giving remedy to maladies; it seems that this tree resembles the tree called 'the tree of life' in the Old Testament (Figure 1).³

After the emergence of Islam (7th Century), among the numerous texts, dealing with pharmacy, vol. 21 of the book Alhavi, written by Zakaria Razi, devoted itself to describing around 800 medicines. Razi, has written other books in the field of medicinal herbs, namely Gharabadin, containing about 63 chapters. We can also name *Al-abnieh an haghayegh al-advie* (lit. The Foundation of Medication), as one of the oldest books written in the 10th or 11th century which exclusively dealt with pharmacy. The book, written by Ali Heravi, in addition to 584 medicines introduced alphabetically, their usage, in the form of tablets, pills, ointment, dressing, powder and syrup, has explained the exact amount of ingredients used in their production. This book is amongst the first dealing with the side effects of medicines and those neutralizing such side effects. Avicenna (10th century) also, has allocated some parts of the 2^{ed} and the 5th volume of his book, The Cannon, to pharmacy. Other medical books followed this trend till the 16th century. Writing books specifically dealing with medications and pharmacy continued for a long time, culminat-

1- Sarmadi, 2000: 155.

2- Tafazoli, 2000: 58.

3- Seddighi, 2007: 99-100.



ing in the publication of *Makhzanaladvieh* (lit. The Source of Medication, 1772), which is now considered a comprehensive book in the field of traditional pharmacology. Generally speaking, pharmacology is amongst the oldest sciences among Iranian. Yet, from 16th century to mid19th century, this field lost its popularity and the job was mostly done by local healers; they rarely used the written texts and used to treat people based on some oral tradition of their ancestors, at times, mixed with superstitions. But from mid19th century (Mid Ghajar Dynasty), owing to the dissatisfaction expressed by people, Naseredin Shah, (the King 1831-1896) asked Mohammad Ibn Abdesabbour Tabrizi to write a medical book containing both Iranian and Western medical knowledge. The present study aimed at giving a report on the history of medicine and pharmacy in Iran from the beginning till 1942, followed by the reports of the first modern pharmacies founded in Iran.



Figure 1. The Austrian doctor, Dr. Polak, in Persian Dress.



Before discussing about the history of modern pharmacy in Iran, it should be emphasized that even though no written scientific text is left giving witness to the existence of pharmacies, in mythical as well as ancient stories, one can find traces of the places being used to sell medicine, known as the house of medicine. These texts, along with other historical and literary texts, encompass traces testifying the existence of such traditional pharmacies. In addition to the ancient texts bearing witness to considering pharmacy an old science, there is ample evidence in Persian literary and historical texts introducing pharmacy as a place to sell medications; these pharmacies were out of doctor's offices. Then, they, being independent from doctor's office, began to sell medications and drugs, in pharmacies. Concerning the important status of pharmacy in Iran, the following poem can give witness to that:

Har Aghaghir ke darookade Kabol Rast /Hazer aarid va baha badre zar baz dahid

(lit. Every Precious medicine which in the pharmacy Kabul is/ bring in and cost bag gold give / Whatever medicine is in the Kabul pharmacy / bring in and take gold in return)

This verse is composed by Khaghani (13th century) whose child is dead and requests the best medicine found in Kabul Pharmacy⁴ (implying the best pharmacy) in Kabul, then a part of Iran. This verse shows the importance of pharmacy in Iran.

In ancient Persian texts, the word "house of medicine", a place where medication is sold, along with related words 'prescription' and 'prescription dispensing' is prevalent. Also, there is some evidence in historical texts indicating selling medicine as an independent profession. For instance, Ibn-e Okhova(e) in the book *Ayeen-e Shahr-dari* (Municipal Ordinance) indicates the incidence of selling fake medicine, asking the sheriff to investigate this.⁵ During Safavid Dynasty (1501- 1722), also pharmacies were under the surveillance of the government to make sure that the hygienic principles of keeping the utensils clean and selling the right medicine were observed.⁶ The point that pharmacies were under government surveillance continued up to the present time implying the importance of manufacturing and selling medicines⁷.

In addition to the word "house of medicine", the word

4- Khaghani, 1996: 136.

5- Ibn-e Okhova(e), 1981: 119-123.

6- Siril, 1978:94.

7- Ahmadi, 2012:128.



‘Attari’, derived from the word “Atr” (lit. Perfume) was common in Persian language. Attari was a place where perfume and distilled liquid were sold. Little by little, attaries (perfume shops) began to sell dried flower, flower root and aromatic spices, fragrant incense and drugs of herbal origins; this, in effect, turned it to a local pharmacy. Attaries were turned into stores full of shelves selling and at time prescribing medicines and/ or even resorting to some superstitions for treating patients.⁸ Hence, Qajar Court issued a declaration restricting their activities.

At this time, mainly due to the familiarity of Naseredin Shah, (the King), with medical improvement in Europe, the first modern medical school was established in Iran.

Modern Pharmacy

In modern age, along with the social reform happening in Iran, it seemed necessary to found a modern medical council in Iran. Hence, Amir Kabir, the Prime Minister to Naser al din Shah, launched the first modern school in Persia, called *Dar ol Fonoon* (lit. School of skills, or polytechnics) in 1851, training professionals in different fields including medicine and pharmacy. Owing to the shortage of professors in these fields, they hired seven professors from western countries, mostly from Austria led by Dr. Jacob Edward Polak: Dr. Charnota (mineralogist), Zatti (Mathematics), Kerziz (Artillery) Cumoans (Army Officer), Nemro (Cavalry)) and prof. Focckette (Figure 2). Dr. Focckette, for instance, was originally Italian, and was hired to teach chemistry, physics and pharmacology. Dr. Polak recorded the arrival of these professors in his logbook in 1851. There were 114 students in total, seven of whom were taught natural sciences and pharmacology by Dr. Focckette. As recorded in Medical History in Iran.⁹ Naseredin Shah visited the school and awarded the students, showing his satisfaction of the progress made. Based upon the documents remained from that era and the one-year-return of Dr. Focckette to the west to buy certain medical instruments, one can conclude that he founded the first modern pharmacy in Dar ol Fonoon. Upon the completion of the Dr. Focckette’s contract, one of his students, Mirza Kazem Mahallati, substituted him in 1870, succeeded by Dr. Rokberon, Schoverin from Germany and Dr. Maulion from

8- Takmil Homayoon, 1999: 999.

9- Najmabadi, 1996: 86.



France. Pharmacy school continued functioning following Dr. Focquette's pathway for about 70 years till 1919. In 1919, upon the decree of Ahmad shah Qajar, the medical school was separated from Dar ol Foonon and functioned as an independent school. In 1921, the pharmacy school was founded and in 1926 the school formally announced a 3-year period for the pharmacy students. And in 1928, when Henry Schtroneck began teaching biochemistry and pharmaceutical chemistry, the new pharmacy code was written and pharmacy schedule contained pharmacy apprenticeship as well.¹⁰ This trend went on till 1939, when Prof. Obrine became the chancellor of the above schools, and extended the educational period to 4 years. Based upon the available documents, the number of students admitted at the school was as follows in Table 1:

Table 1: The Number of Students by the Educational Years

Educational year	The number of students
1859	7
1858	4
1861	10
1882	33



Figure 2. Tehran Pharmacy Society

It is worth mentioning that along with the formal university activity, there were some other people contributing to the development of pharmacy in Iran, namely Gustave Loconte, a French pharmacist who served the French army



as a major. He was then hired as the president of the laboratory and a pharmacist serving Shah (the king).

As mentioned above, owing to the effort made by the reformists and intellectuals of the time, the society was ready to accept new ideas in the field of medicine, one of which being in the field of pharmacy. This was accomplished by sending Iranian students to Europe to continue their studies as well as inviting professors from the west to teach in related colleges, culminating to the emergence of pharmacies in the ways they are practicing now. Of course, there were lots of barriers made by traditionalists who disseminated the idea that foreign medications were poisonous and hence not trustable.

Anyway, we can consider Dr. Focchette as the founder of modern pharmacy in Iran. In 1875, he left Iran to buy some utensils for the laboratory and pharmacies. This implies that he founded the first pharmacy in Dar ol Fonoon. Furthermore, a clinic was also opened in Dar al-Fonoon so that the patients could receive the required medication upon examination.¹¹

However, the first pharmacies in its modern sense, set up outside Dar ol Fonoon, was attributed to Albert Scheverin from Germany and Maulion from France who were already been invited to teach pharmacy students in 1826. Around 1868, they opened pharmacies in Tehran according to the principles applied by the government. About 10 years later, the pharmacy society was established, passing a number of pharmacy codes.

At first, customers of Scheverin's pharmacy were restricted to either Europeans living in Tehran or the staff of the embassies; later, it became popular among people and then Maulion set up another pharmacy in Tehran. Owing to the popularity of modern pharmacies in Iran, some Iranians, mostly Armenians who were then graduated from western universities returned home. This led to the opening of eight pharmacies, namely German, Russian, and military pharmacies, in different parts of Tehran.¹² Beside these pharmacies, there were some ambulatory pharmacies accompanying the army.¹³ Even in the military camp, there were pharmacists, as documented in *Almaaser val asar*.¹⁴

Or, when, the king and his family were escaping Chol-

11- Anonymous, 1879: 1.

12- Takmil Homayoon, 1999: 67.

13- Hedayat, 1812: 491.

14- Etemad al-saltaneh, 1976: 234.



era epidemics in 1845, a medical team was present under the supervision of the French doctor called Dr. Cleo. In addition to Tehran, there is ample evidence indicating the establishment of pharmacies in cities other than Tehran; for instance, there are two documents about vaccination and drug preparation in Tehran. In these documents, the words pharmacy and preparation of medicine are used. Or as Azimi states there are some documents testifying the popularity of pharmacies in Iran.¹⁵ For instance, in 1925, the standby code was passed for pharmacies in all cities and towns; this shows the large number of demands for opening pharmacies in Iran. It was, for example, emphasized in one document that “in towns with less than 2000 population, there should be at least one standby pharmacy each night”.

The Austrian doctor, Dr. Polak, in addition to the names of other doctors and surgeons, wrote the name of Mirza Bozorg, the pharmacist in his logbook. The name Pharmacist was used in its modern sense; otherwise the word ‘Attar’ was already present in Persian language.

Conclusion

Upon the emergence of Pharmacy in Iran, it was, at first, considered a subcategory of medicine, and only after medicine was further divided into diagnostic and clinical medicine, pharmacy was recognized as an independent branch of medical sciences. Mohammad bin Zakaria Razi was the first person who promoted pharmaceutical science, independent of medicine. This independence contributed to the translation and compilation of books in the field of pharmaceutical science which later resulted in the development of pharmaceutical profession and industry. This helped launching pharmaceutical stores and pharmacies, often located next to hospitals, for providing and selling medicines. Based on some established sources mentioned above, the first herbal shops (Attari), named Al-Seiddeh, were opened in Baghdad, and later in other cities. In these stores, pharmaceutical materials, at times, up to 2,000 items, after being classified, were placed in different boxes suitable for each medicine. These pharmacies, known as Attari in Iran, gradually took on a commercial form, which was instrumental in the establishment of

15- Azimi, 2010: 73.



the law for getting the license for selling medicines. Then, pharmacists, in order to function professionally in this field, had to take a specific test to obtain a kind of license. This trend continued in Iran until the Qajar period. At this time, which coincided with the middle of the nineteenth century, by the order of Naseredin Shah, and opening of Dar al-Fonun School (1851), Iranians' acquaintance with the modern medicine became more profound. The school, in addition to teaching modern medicine, taught pharmacy as well, leading to the establishment of the first modern pharmacies in the same school and next to the hospital. After that, in 1868, an independent pharmacy was opened in Tehran, followed by new pharmacies in other cities of Iran. However, after that, traditional pharmacies (Attaries), along with modern pharmacies, continued to function for a long time. As in modern times, Attaries are still used as a place to supply and sell medicinal plants and traditional supplements.

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