

## ORIGINAL ARTICLE

### Analysis of the Performance of Nursing Schools in Iran in the Pahlavi Era; A Case Study of Isfahan (1925- 1979)

#### Abstract

Optimal health care depends on facilities and conditions, such as equipment, medicine and specialized personnel, such as doctors and nurses. Concerning medicine, though briefly, one may find some information, there is scarce information regarding nursing services. It is common knowledge that one main reason for the patient's recovery and health is how they are cared for. As a profession in Iran, nursing training officially dates back to the late Qajar period. During this period, by opening schools, religious missionaries attempted to educate and train nurses, positively affecting the health status and attitude of the people. Since the Pahlavi era, the government made an effort to open nursing schools which led to the development of the education and training of specialized nurses. The present study intends to deal with the formation of nursing schools and their performance, as well as the measures taken in the Pahlavi period in this regard in Iran, especially in Isfahan. It seems that although public schools and charity organizations have taken various progressive measures in this direction, they, for various reasons, failed to train enough nurses to meet the needs of medical centers. On the other hand, in the Pahlavi II period, charities took the largest share in the training of nurses.

**Key words:** School of Nursing, Health, Charity, Pahlavi II, Iran, Isfahan

Received: 27 Jul, 2021; Accepted: 25 Aug 2021; Online published: 25 May 2022  
**Research on History of Medicine/ 2022 May; 11(2): 75-94.**

Somayeh Al-Sadat Sajjadi<sup>1</sup>

Morteza Nouraei<sup>2</sup>

Ali Akbar Jafari<sup>3</sup>

1- Ph.D. Candidate, Department of History, Faculty of Literature and Humanities, University of Isfahan, Isfahan, Iran  
2- Ph.D., Professor, Department of History, Faculty of Literature and Humanities, University of Isfahan, Isfahan, Iran  
3- Ph.D., Assistant Professor, Department of History, Faculty of Literature and Humanities, University of Isfahan, Isfahan, Iran

#### Correspondence:

Morteza Nouraei  
Ph.D., Professor, Department of History,  
Faculty of Literature and Humanities,  
University of Isfahan, Isfahan, Iran

m.nouraei@ltr.ui.ac.ir

#### Citation:

Sajjadi SAS, Nouraei M, Jafari AA.  
Analysis of the Performance of Nursing  
Schools in Iran in the Pahlavi Era;  
A Case Study of Isfahan (1925- 1979).  
*Res Hist Med.* 2022; 11(2): 75-94.



## Introduction

Nursing services refer to a set of tasks performed by an educated and trained nurse, following related scientific principles; however, serving and helping patients has a long history. Nursing services were formed from the time when diseases emerged. It seems that family members, especially women, were the first to provide nursing services. Physicians were present at the patient's bed, giving prescriptions and instructions on how to use the medicine, appropriate diet, and resting procedure; family members followed these instructions. These 'nurses' cared for the patient without having any medical knowledge. In times of war or epidemic diseases, taking care of patients changed. In wars, doctors and their assistants were responsible for caring for the wounded. Therefore, these assistants can be considered the first nurses with medical information. Nursing such people required skills and knowledge that they acquired while working with physicians as their assistants.

Iran has also benefited from the presence of these people in historical periods. Unfortunately, their efforts have been ignored and forgotten over time due to the lack of resources. During the Qajar era, Iran witnessed the arrival of an increasing number of foreign physicians, as well as the departure of some young people to Europe to study there, resulting in some changes in the field of medicine and health services and enhancing the formation of educational centers in Iran. Since the era, one may find a lot of information about health services written in memoirs and books. However, there is still no information on the way the patients were cared for, the persons took care of them, or the professional training the 'nurses' received. The arrival and activity of Europeans, predominantly Christian missionaries, in Iran, were influential in making changes in the medical system of Iran during this period. They played a significant role in introducing modern medical sciences to Iran by establishing medical centers, such as hospitals in some cities like Tehran, Isfahan, Shiraz, Mashhad and Tabriz. The establishment of the Dar al-Fonun School and later the professional school in Tabriz made people, especially the upper class, familiar with new therapies. However, the prevailing culture of Iranian society in accepting modern medicine and its services was problematic.

The emergence of the Pahlavi government and their plan to change the structure of society were effective in improving the medical condition in Iran. During this period, steps were taken to improve the medical condition by establishing a university and employing Europeans in the health care system. Also, the government opened the first nursing schools. The Europeans employed in the health care system and provided some medical services attempted to educate the nursing students.

The process of formation and activity of nursing schools in Iran has gone through a different path during this era, some of which have been mentioned in books and articles, including Motameni (1971), Azrami et al (2011) and Valizadeh, Zamanzadeh and Qavi (2018). Their works have dealt with the formation of nursing services and schools in Iran. These resources generally provide an overview of the issue without referring to the role of charities in shaping and advancing this profession. Hence, this work, based on library studies and archival documents, has taken a descriptive-analytical method of research in the mentioned period, focusing on the services of government and charity organizations, such as the Imperial Social Services Organization and the Jamiat-e Shir o Khorshid (the name of a charity organization in Iran, lit."lion and sun population"), in establishing



schools and Providing nursing services in Iran, especially those founded in Isfahan in the Pahlavi period.

### **Nursing services**

Nursing services refer to the set of tasks and activities performed by educated nurses with medical knowledge and skills to help patients. Prior to the development of nursing education centers, and due to the limited number of nurses, they used people who had learned some of the nursing techniques in a short period of time or were familiar with some health care issues experimentally. Prior to 1958, in some schools, the formal training of nurses was not more than two years. Among the nurses, there were some limited numbers of practical nurses as well. Some institutions trained new groups, such as child-care assistants, practical nurses, pediatric nurses, mental health care nurses, and school nurses. (Motameni, 1971, pp. 1-10) However, in 1958, the nursing schools in Iran issued a mandate that all nursing schools must adopt the approved educational programs. According to this mandate, the students should complete a three-year program to achieve a bachelor's degree. Two years were set for the practical nursing program. (Motameni, 1971, p. 10) In March 1938, one of the measures taken by the Ministry of Health was to encourage those interested in this profession by passing the law on hiring nurses, midwives and technical staff. (Azarmi, and Farsi, 2011, p. 39) This law led the government to recognize and support the nursing profession. It also helped increase the nursing salary, upgrading the job as a technical and professional profession. (Manuscript No. 270/90, n.d.)

### **Nursing schools**

Nursing education and the establishment of schools for this purpose, in its modern sense, began with the arrival of religious missionaries in Iran. An association was formed in the United States in the 19th century with the aim of helping educate Christians in other countries. To this end, in 1881, they sent the association members to various countries, including Iran. To propagate Christianity in Iran, the missionaries took some measures to establish nursing schools. In 1915, the Association of American Protestants began training a number of nurses at a Christian hospital. A year later, the first nursing school with a 3-year course was established in Tabriz. One of the prerequisites for admission to the school, considering the religious and cultural restrictions, especially for women in Iran, was to have completed the six-year primary school. After the community better understood the status of nurses in the health care system over time, the prerequisite for the candidate for entry to the nursing school changed to having completed the first cycle of high school. (Valizadeh, Zamanzadeh and Qavi, 2018, p. 92) This school, considered as the first official nursing school in Iran, later became an adjunct to Tabriz University in October 1970. (Motameni, 1971, pp. 3-5) In the post-World War I period, Jane Wells, Dr. Pakard's wife, established a medical school in Tabriz where 91 Iranian girls enrolled. (Alder, 1954, p. 84) However, it was not welcomed by traditional Iranian families since they did not like their children, especially their daughters, working out round the clock and taking care of patients. In the early years of nursing education, most candidates were from non-Muslim families. Then, after a year and a half, these centers were closed with the outbreak of World War I and its aftermath. It should be noted that certain nurses used



to work in the missionary medical centers in Iran before 1915. Prior to that, the missionaries of the American Hospital in Tehran had trained a number of girls for nursing professionals. (Al-Dar, 1954: 84)

Gradually, with more demands in receiving nursing services in medical centers, the number of nurses increased, and it was tried to use specialists for their training voluntarily. Having access to the desired health services necessitated the need for skilled and experienced personnel in the country's health organizations. Prior to establishing nursing schools in Iran, there were significant problems in this regard; nursing services were not yet known as a medical profession, and those working in this field had no specialties.

The Pahlavi I period in Iran is considered the beginning of reforms in the country, a transition from the traditional Qajar period to a fairly modern one. One of the measures taken in this line was in the field of health and medical issues, encompassing the establishment of numerous medical centers and facilities. However, clinics and hospitals could not function without hiring specialized and experienced personnel. At that time, Iran had few professional medical staff, and it had not any at all at certain places. Therefore, to meet the need for skilled and specialized personnel, the government reviewed some solutions before implementing them. In the first step, they employed specialized personnel from European and American countries to train nurses. In Iran, the recruitment of foreign staff for work had a long history. In the Pahlavi I period, due to the favorable political relations between Iran and Germany, many skilled and specialized forces from Germany entered Iran. They worked in various industrial, health and cultural sectors. Towards the end of the Pahlavi I period, several attempts were made to employ Europeans to train skilled medical personnel and disseminate and promote health awareness in the country. Among the measures taken, the following were remarkable: the establishment and increase of the number of modern schools, the establishment of universities and training centers to train the next generation and make them ready to work in medical, cultural and political organizations and institutions.

In 1935, by order of Reza Shah, three nursing education consultants from the United States were invited to Iran to train nurses. Tehran and some provinces established modern nursing education centers observing key scientific principles. According to Mahmoud Jam's letter to the Ministry of Education, Tehran, Tabriz and Mashhad nursing schools started their activities from 1936-37. In addition, it was determined to hire five American nurses in nursing schools with a monthly salary of 900 to 1,000 Rials. According to the decision of the Ministry of Education, two more nursing schools were planned to be established in Shiraz and Isfahan in the academic year 1937-38. (Manuscript No. 297/08804, n.d.; Manuscript No. 310/46354, n.d.; Manuscript No. 310/52002, n.d.). They started their activities for a one year from October 1938. The monthly salary of nurses in Mashhad and Shiraz were set at 9,000 Rials plus \$ 500 to cover their travel expenses, but the salary of nurses in Tabriz and Tehran was set at 1,000 Rials per month. The establishment of Isfahan Nursing School was not implemented until 1939. (Manuscript No. 310/46354, n.d., Manuscript No. 310/52002, n.d.) Nursing school in Tehran was opened in 1936, inaugurated by the Ministry of Culture as Tehran State Nursing School. In the academic year 1938-39, 14 students enrolled in the school. However, owing to the lack of nursing equipment, the school closed down in 1940. In 1941, the boarding nursing school was established. (Roustaei, 2003, pp. 239-238) The American School of Nursing in Rasht



was opened in 1936, beginning its activities with the approval of the Ministry of Education as the only nursing training center in Guilan (First Province). In the same year, Alain Ree Kelson was approved as the manager of Guilan Hospital by the Guilan Department of Education. The school had to observe and follow the nursing school's policy and program in session 301 of the Higher Education Council on 23/June/1936. (Manuscript No. 297/021677, n.d.; Manuscript No. 297/33091, n.d.) Even though all nursing schools had to comply with the schedule of nursing centers, Rasht nursing school implemented a different curriculum from other nursing schools; therefore, in January 1950, the school asked the Ministry of Culture to approve its educational program. (Manuscript No. 297/33091, n.d.) In 1950, six people graduated from the American School of Rasht after completing a 3-year theoretical and clinical course. They were entitled to be enrolled, provided they had had a nine-year secondary school certificate. In 1950, among the teachers and deans of this school were: Ms. Younes Bieber (with 16 years of nursing experience), Dr. Frame (with 16 years of experience as the deputy director of Mashhad and Rasht), Dr. Rala Hoffman (with 33 years of experience as the director of the American Hospital in Mashhad, Tehran and Rasht), Dr. Milton Orshan (graduated from the University of Tehran and one year vice-chancellor of Rasht Hospital), Noorullah Hakim Alam (graduated from the University of Tehran and four-years' experience as the vice-chancellor of Mashhad and Rasht Hospitals), Miss Benz, (Bachelor's degree from Rosters University, New York), and Ms Browning, (Bachelor's degree from the United States)(Manuscript No. 297/33091, n.d.) Since the arrival of American teachers and nurses in Iran to open health-training centers, their number gradually increased. Several schools were established for medical assistance and nursing assistance during this period. Teachers trained specialized staff together with scientific education. (Motameni, 1971, p. 6) With regard to the thirty-three-year experience of Dr. Hoffman in nursing education in Iran, since 1916, he, along with his colleagues, continued his activities in the field of clinical, scientific, medical and health affairs for many years, having a considerable impact on medical activities and nursing services in Iran.

In July 1936, the Council of Ministers and the High Council of Education approved the statute and program of the Nursing School. The approvals encompass the provinces of Khorasan, Guilan, East Azerbaijan, Isfahan, Fars, Kerman and Mazandaran. (Manuscript No. 275/2865, n.d.) The approvals were sent to these centers, indicating that there were nursing schools there. These schools were exclusively made for women in Tehran and other important centers of the country. The students studied in the two-year boarding school free of charge; there was also a hospital where they took an internship. Students could attend and practice in other hospitals as an apprenticeship. The candidates who already had their three-year secondary school certificate and passed the entrance exam were registered at the nursing school. The other eligibility criteria for admission included age limit between 16 to 25 years, being single, and having physical and mental health. In addition, the nurses who had already worked in health institutions for at least three years before the school was established could enroll in these schools to complete the course. Each year, technical and scientific courses were offered according to the predetermined program, and those who succeeded in obtaining a degree could enroll in and participate in midwifery schools. The academic year began on September 23. The courses offered within the first sixth month included: Anatomy and dissection, microbiology, nursing



etiquette, and the foreign language. Practical courses in the seventh month were skin diseases, midwifery, foreign language, and in the eighth month, electrical treatments, basic medical aids, and foreign language. From the 9th to 11th months, specialized nursing courses, such as home nursing, hospital housewifery, specialization in surgical or medical departments, pediatrics, Asylum, etc., were taught. Practical programs included cleaning rooms, ventilation, bedsheets, hospital kitchen, arranging beds for patient admission and whatever else is related to patient care, so that the period of illness is well taken care of, observing therapeutic, environmental and physical health standards. These were among other trainings considered important for nursing students. (Manuscript No. 275/2865, n.d.)

The other school that promoted health care and was active in training health care staff was the midwifery school. The first group of students graduated from the midwifery school comprised eighteen girls and women who completed their study in academic year 1932-33. They, then, provided health services to women in the capital. (Women and Health, 1934, p. 11) Prior to this period, midwives were, in fact, older women who had acquired these skills through observation and practice. They helped give birth to babies without observing any hygienic principles, which sometimes caused the death of the baby and the mother due to severe infections. Since the establishment of the midwifery school, offering childbirth, prenatal and postnatal care courses, efforts were made to control and prevent infant and maternal mortality. Initially, educating girls in this field was problematic in this traditional society. However, the establishment of such schools and training specialized manpower effectively reduced the annual mortality of infants and mothers, positively affecting the society's attitude towards this profession. Madame Fraskina was one of the teachers at the midwifery school. Until 1928, the school did not have any written regulations. The study period was three years, and the prerequisite for enrollment was for the candidate to have a six-year elementary certificate and be familiar with the French language. Over time, the entrance prerequisite changed to obtaining the first-year secondary school certificate (Manuscript No. 3059, n.d.). However, knowing French was an obstacle to the limited enrollment of girls in this school; most girls could not attend the school due to their unfamiliarity with the French language, which, in turn, was because of their education in homeschooling or by home teachers.

Dr. Klounieh, Director General of National Health, in 1932-1933, was appointed to propose a practical plan for the country's health reform. In his report, he suggested: "It would be beneficial if five or six girls from the proper families with sufficient general knowledge are sent to Europe to become acquainted with the nurses' duties in their homes and their important social and health responsibilities. After returning home, these girls will be able to educate other nurses." (Manuscript No. 103303, n.d.)

According to the available documents, in the late years of the Pahlavi I period, it was decided to hire a number of nurses from Germany for medical training centers and the 500-bed hospital. The recruitment report included three physicians, 28 nurses, 4 administrative and technical staff, including a mechanical engineer for central boilers, heating and water installations, a mechanical engineer for power stations, ventilation, and low-power devices for medical electric devices. In August 1940, the German government set specific conditions for their employment, which were not implemented in Iran. Therefore, in the draft of the initial contract, the salary of the head nurse reduced from 750 to



600 Marks and that of the deputy head nurses from 650 to 500 Marks and other nurses from 450 to 400 Marks to 350 to 300 Marks. It was also decided that their salary would be paid in Rials. Other fringe benefits, such as food, accommodation, and transportation became more feasible. In the initial contract, the Iranian government agreed to provide them with food, housing, insurance and taxes. The next draft was signed between the Iranian government and the National Sister Association and Independent Nurses of Berlin. Two nurses were recommended, one as the head nurse and the other as her deputy. In case of requiring more nurses, the head nurse would help in this regard. Eventually, the salary of the head nurse was set at 600, the deputy 500 and the rest between 300 and 350 Marks. The travel expense fee was assigned as 2,000 Marks and 300 Marks per person for purchasing required things paid for three years. Annually, they had two months of leave, one month used in Iran and one month at the end of three years in Germany for three consecutive months. They were also exempt from working with Jewish nurses. The employment of nurses continued for several years, until the Crown Prince, Mohammad Reza, in a confidential letter, dated June 25, 1941, proposed to hire nurses from Switzerland. Correspondence for hiring nurses continued until the Pahlavi II epoch. During this period and during the time of Mansour, as the Prime Minister, on 22/May/1946, an order was issued to hire a German nurse and a deputy nurse to educate nursing students. Considering Iran's financial capacity to pay salaries and other benefits, it was decided to hire only two nurses. (Manuscript No. 270/521, n.d.)

In order to develop the country's health services, on 23/Sept/1936, the Ministry of Education issued a permit to establish the first pediatric nursing school for Avagol Shahbaz in Tehran. She had a degree in nursing and midwifery. In addition, he published a book entitled "Maternal Etiquette" and was the "founder of maternity hospital and a boarding house for (non)-sick children." (Manuscript No. 297/27353, n.d.)

Up to the end of the Pahlavi I period, nursing schools and colleges were obliged to function under the supervision of the Ministry of Education and the Ministry of Health. They were state centers, and the state budget financed parts of their expenses. During this period, with the help of missionaries in Iran and the establishment of nursing schools and training nurses in medical centers, the shortage of nursing services in Iran was relatively removed. However, due to the limitations of Iranian society and the traditional families, only those who lived in cities where nursing schools were established could benefit from such training. In other words, traditional families did not let their daughters study in another city. In addition, the amount of budget allocated to health issues in the country was insignificant compared to the problems of health and treatment in the country. Furthermore, teachers hired to work in nursing schools were from Western countries, especially the United States. From 1936 onward, considerable efforts were made to educate and train more nurses in Iran, increasing the number of nursing schools. This would improve the quality and quantity of health care in the country by increasing the number of trained nurses in important provinces of Iran. However, it seems that girls and women faced many restrictions in studying nursing in Iran due to social, cultural, and even religious conditions. These restrictions were more pronounced in smaller cities and in villages and areas farther from the capital. Therefore, these issues led to shortages and even the absence of nurses in many parts of Iran.



### **Nursing Schools in the Pahlavi II Period**

The beginning of the Pahlavi II regime in Iran coincided with World War II, its consequences, and Iran's occupation by foreign military forces. In the early years of his rule, infectious diseases, lack of health facilities, famine, inflation, poor management and inefficiency of the government in crisis management were among the problems Iranians faced. After the war, the Iranian government sought to address some of the problems caused by the lack of medical facilities and personnel. In addition, the country's treasury was empty, imposing a lot of restrictions on the government. The contribution of private and semi-governmental organizations, especially charities and public benefit centers, was fruitful in building the required health centers, meeting parts of the country's needs in this field. In addition, their contribution to paying some of the expenses would help the country's limited budget. Iran's Jamiat-e Shir o Khorshid, the Imperial Social Service Organization, and the Farah Pahlavi Charitable Society, active in providing part of the country's health manpower, were among the non-profit organizations of Iran in that period. The Pahlavi II epoch took several measures to provide medical and health manpower. During this period, nursing schools were established by the government and government-affiliated charities, such as the Ministry of Health and state universities. In addition, several European physicians were recruited by Iranian medical centers. The presence of these doctors with their families helped meet some of the community's health needs, especially since the wives of some of the doctors helped their husbands in providing nursing services. Until 1958, nursing schools did not use the same programs in nursing education; instead, based on the decisions of the head of the school or the affiliated institution, the educational program was compiled and planned. This year, with the compilation of the statutes of nursing schools, the approved educational programs were sent to all schools. The nursing education period with a bachelor's degree was three years, and that for the assistant nursing education was two years.

It should be noted that before 1953, Iranian nurses did not have an association; in 1953, with the efforts of some nurses who had been educated abroad, the Nursing Association was established. This association aimed to support nurses, appreciate their status in society, increase their level of knowledge and help improve the condition of patients and health. (Valizadeh, Zamanzadeh and Qavi, 2018, p. 92)

### ***Jamiat-e Shir o Khorshid services***

In 1922, Jamiat-e Shir o Khorshid, at the end of the Qajar period, began its activities according to the goals of this organization in the world, helping the needy at the time of natural and unnatural disasters. This charitable organization developed its activities in the field of social, cultural, health and medical affairs, providing people with relief in crisis, requiring skilled and trained personnel. At that time, Iran faced many limitations in providing the country with the necessary resources, especially medical personnel. Iran's Jamiat-e Shir o Khorshid determined to establish a number of educational centers to meet the need of the medical staff in Iran. Part of their work in the field of health care was to build and equip hospitals, clinics and offer nurse education in the medical centers. The presence and activity of educated nurses effectively improved patient care and promoted the level of health and hygiene in the country. In 1951, 50 female volunteers received admission to study in the nursing school. The study period comprised three years, and the students received a scholarship covering the tuition and accommodation expenses.





The centers offered students a monthly payment, as well. The school was run by foreign nurses. Admission requirements were a three-year high school certificate and familiarity with English or French. The diploma of the nursing school was equivalent to the high school diploma. (Jamiat-e Shir o Khorshid, 1951, p. 2)

By 1957, about 3126 people were graduated from nursing schools. In addition, 683 nurses with a two-year nursing education and some with a degree in nursing education from training centers abroad were added to this number (Assistant Nursing school in Isfahan, 1958, p. 32). This indicated an increase in the number of nursing schools affiliated to Jamiat-e Shir o Khorshid in Iran.

The Jamiat-e Shir o Khorshid established nursing schools in several provinces. In 1957, Isfahan's Jamiat-e Shir o Khorshid bought 6300m land to construct a nursing school, some central headquarters buildings, and bureaucratic buildings. It also planned to equip the Emdad organization with communication facilities and devices; it aimed to support the child and mother wards, counselling centers and to complete a vocational school for education development. (Assistant Nursing school in Isfahan, 1958, p. 32) Isfahan's Jamiat Nursing School was opened in 1957. In the first year, 18 girls enrolled in school. The cost of accommodation, salaries of administrative and educational staff, and the provision of necessary equipment were the responsibility of the Jamiat and the Planning and Budget organization. After graduation, the graduates worked in public health centers or the Ministry of Health. The administrative and educational staff consisted of 21 people. It was managed by a committee consisting of the head of health organization, the dean of the medical school, the head and the managing director of Jamiat-e Shir o Khorshid, and the internal management of the school, who was an English instructor. (Assistant Nursing school in Isfahan, 1958, pp. 21-22).

In November 1959, the first series of graduates of the school comprised 17 volunteers. According to notices issued by the Jamiat-e Shir o Khorshid, they were sent to different parts of the country. Of these, six top graduates remained in Isfahan and the rest were sent to Tehran, Shiraz, Kashan, Rafsanjan and Yazd. The local Jamiat-e Shir o Khorshid provided the main expenses of the nurses, accommodation and food, and their salaries were paid by the headquarters of Jamiat-e Shir o Khorshid. (Assistant Nursing school in Isfahan, 1959, p. 26) In July 1960, 9 nurses were working in Isfahan's clinic. (Assistant Nursing school in Isfahan, 1960, p. 46; Manuscript No. 230/27102, n.d.)

The nursing school provided facilities to train the qualified interested volunteers from other cities and districts with a nursing school. In 1969, a number of girls from Shahreza were sent to Isfahan Nursing School for nursing education. After two years of study, the selected individuals would be hired for medical and health services if they passed the exams in Shahreza Jamiat-e Shir o Khorshid. The following criteria were required for admission of the candidates: having a certificate of the third year of high school, being in good mental and physical health status, having a certificate of good morals, having the approval of the founding members of Shahreza Jamiat-e Shir o Khorshid or the headmaster of the volunteers' high school, as well as being at the age group of 16-26, single, having the consent of the parents or the guardian, and finally giving a written commitment to work in the health and health departments for four years after graduation. In addition, the volunteers were selected from the local inhabitants. Admitted students lived at the Nursing School residence and received a monthly stipend. (Manuscript No. 97/293/21455, n.d.; Hatami, 1979, p. 17) During the activity of the nursing schools, about 1000 nurses



and 2000 assistant nurse graduated from these centers throughout Iran. (Hatami, 1979, p. 17)

To the extent that the budget allowed, the authorities took measures to establish nursing schools in some provincial centers. From the Pahlavi I period, education methods in Iran underwent some changes. Universities and training centers were founded to train a skilled generation for various organizations and institutions. One of the essential needs was to train nurses for medical centers. Observing how the Red Cross was formed in Europe, this organization set training nurses as one of its primary objectives. Moreover, trained nurses were required by other medical centers as well. Undoubtedly, the presence of educated nurses effectively improved the well-being of patients, the quality running of medical centers, and increasing the health and hygiene level of the country.

Jamiat-e Shir o Khorshid took other measures to increase the number of educated nurses. For example, in collaboration with the Red Cross Association, it organized women's family nursing courses. In this project, a number of women succeeded in obtaining a nursing certificate in 1952. In addition, by offering certain courses in nursing school, some women who joined the social service department received some training in family nursing skills. These courses were for women who were familiar with either English or French language. (Jamiat-e Shir o Khorshid, 1952, pp. 1, 5)

In the continuation of educational activities in the field of treatment and health, Jamiat-e Shir o Khorshid, by taking control of hospitals across the country, attempted to build and develop the Higher School of Nursing since 1971. With a teaching capacity of 180 people and the allocation of 75 million Rials, it began to construct a nursing school in Sari in 1973. In 1975, it began to construct the Mashhad nursing school with a credit of 90 million Rials on land with an area of 10 thousand square meters. (Islamic Consultative Assembly Research Center, n.d.) Shiraz Higher School of Nursing was another training center in the field of nursing education. The construction of the school started in 1977; building the school with an area of 3546 square meters, in three floors, along with a four-story dormitory, in an area of 3387 square meters. It was scheduled to be put into operation in March 1980. (Manuscript No. 220/14330, n.d.) This, however, was not met owing to the victory of the Islamic Revolution.

### **Ashraf Pahlavi Nursing School**

The Imperial Social Services Organization was a charitable organization in the fields of social welfare, education-training, and treatment-hygiene, which began its activities in 1947. One of the reasons for the formation of this charity after the Second World War was the reduction of the consequences of the war in Iran. This organization tried to create social welfare system in the country and by attracting the participation and help of the people reduce the burden of the government's responsibility. After the establishment of the organization, the organization planned to establish a school for training nurses called "Ashraf Pahlavi Nursing School". It was to be an adjunct to the 500-bed hospital so that, with the cooperation of Tehran University, the graduates could be employed in hospitals and clinics affiliated to the Ministry of Health and the Imperial Organization. In addition, after training the volunteers on social services, the center could recruit them to teach hygienic issues and parenting skills to mothers and women in different areas of the country. This was effective in promoting the country's hygienic condition and medical affairs and consequently promoting the health and population growth of the country. (Ashraf Pahlavi



Nursing School, 1947, p. 4.) Finally, on November 2, 1947, the initial measures were taken to build a school in a garden of 30,000 square meters in Tehran. The school rules were approved on 20/Feb/1948 and inaugurated in April 1949 under the chairmanship of Ashraf Pahlavi. One of the reasons for establishing Ashraf Nursing School was to provide sufficient staff for centers and clinics affiliated with the Imperial Organization. After its establishment, the organization promoted and developed health and disease control in villages and remote areas at the top of its policy. Therefore, clinics needed more medical staff to provide services whose shortage was striking in Iran. On the other hand, the nursing school was already established under the supervision and leadership of Shams Pahlavi one year after the establishment of the Shir-o-Khorshid nursing school. It seems that there was a competition between princesses Shams Pahlavi and Ashraf Pahlavi regarding the social and political activities of the country. This stimulated Ashraf, the vice president of the Imperial Organization, to establish a nursing school, as well. Prior to establishing Ashraf Nursing School, there was no nursing education at the university level in Iran. In the beginning, two books in the field of nursing were translated and published. The Higher School of Nursing admitted nursing candidates twice a year, and each time, 50 students. (Pahlavi era exhibition, 1976) The conditions for accepting volunteers changed several times based on the social condition of the society. At the beginning of its establishment, due to the low level of education in Iran, especially among women, the admission conditions were easier. Admission requirements were: the age limit between 17-25 years, a health certificate, and a first-cycle of high school certificate. Over time, the condition for registration was changed to completing the five years of high school education, and priority was given to those who had acquired higher educational qualifications. The school was exclusively for girls. (Ashraf Pahlavi Nursing School, 1951, p. 4; Manuscript No. 270/334, n.d.) Accommodation, food and uniforms were free for students. Top Nursing graduates could enter the Higher School of Midwifery. They received a midwifery certification upon passing the entrance exam and completing a one-year course. Ashraf Nursing School was one of the best and most important educational centers in that period, and the degree of the graduates was equivalent to that of western nursing schools. Interested students were able to continue their studies in the United Kingdom or the United States, taking specialized courses.

Teaching was carried out by professors of the Medical University and the Board of Foreign Experts of the Nursing School approved by the University and Faculty Council. Ashraf Nursing School functioned in collaboration with the University of Tehran. The university was also responsible for providing faculty members, examiners, and exam supervisors. The school year began on October the first. In the first year of its inauguration, on April 3, 1961, 40 volunteers and 20 people were admitted in September. Preliminary exams were held at the end of the school year. (Manuscript No. 270/334, n.d.)

The final exams were held at the end of the third year in September, and those passing the exams would officially receive a certificate in general nursing. After graduation, they were obliged to either work in the public hospitals for two years or had to pay back the tuition fees. If they continued their education in midwifery schools, they had to complete an internship program for two years after graduation. During the years the school was in operation, the validity of the degree given to the graduates also changed due to the change in the admission conditions and the school statute. For instance, students entering school with the fifth grade of high school were able to obtain a diploma in nursing. In the fol-



lowing years, by changing the admission degree from the fifth high school to the sixth grade, they were awarded a degree equivalent to a bachelor's degree at the end of the nursing course. Therefore, in 1961, some graduates protested against this and asked for a bachelor's degree since they had passed the midwifery course and had work experience. There were 18 of them, and as a bachelor's degree was given to six of them having the same conditions, the others also asked to receive a bachelor's degree. (Manuscript No. 270/334, n.d.) The difference in the degrees given by different schools led the graduates to send their written objections to relevant educational centers, such as the Ministry of Health and the Ministry of Culture. They requested to receive a bachelor's degree. (Manuscript No. 297/44638, n.d.)

Up to 1952, a number of English nurses worked in educational and medical centers. After the nationalization of the oil industry and during the time of Mossadegh, as the prime minister, due to the political disparity between the Iranian and British governments, the Iranian government sought to expel English nurses from Iran. Despite the school's demand for the students' cooperation, there was unrest on their part. One of the reasons for the unrest was poor management and decision-making. Since the dismissal of the English nurses on July 23, 1952, until the day of their departure on July 28, the government had had no plan on how to control the internal affairs and education of the school. On the day of departure, a meeting was held in which Ashraf Pahlavi, Dr. Ashtiani and Dr. Mossadegh decided to appoint Iranian deputies to the managerial post. Dr. Golgolab, the Medical School professor, became the school's managing director and supervisor. The students refused to accept them and did not even accept the school's educational program. There were 80 girls from Tehran and other cities studying and residing in the school. There was a possibility of school closure due to insecurity. The Nursing School was the only school approved by the University of Tehran. In order to prevent insecurity and the closure of the school, in negotiations with Dr. Mossadegh and the legal representative of the Minister of Health, it was decided to hire several nurses of impartial nationalities in cooperation with the World Health Organization to run the school. Decisions were even made to expel the protestors. (Manuscript No. 270/334, n.d.)

In September 1956, in order to develop the nursing profession and inform people about the activities and performance of the government and governmental institutions in the field of health care and training of specialized personnel, a large nursing conference was held in Tehran. At the conference, issues related to nursing, nursing services, public health nurses and midwifery were presented. (Manuscript No. 297/44629, n.d.) Then, in the 70s, nursing education and services in medical centers increased dramatically, so much so that in 1973, the number of nursing students amounted to 320.

In addition to the accommodation and financial support of the Ashraf Nursing School, it granted scholarships to nursing students. Chairmen of the organization had gained some funds for the school by corresponding with some European countries. Iranian students could get scholarships to universities in Europe, such as Germany; in turn, the young from some foreign countries could also study in Iranian nursing schools through scholarships. (Manuscript No. 270/90, n.d.) These facilities were within the framework of supplementary education given to train experts and technical specialists of developing countries. In the academic year 1974-1975, the Federal Republic of Germany government favored that a number of Afghan students to study in Iranian schools through scholarships. (Manuscript No. 297/44629, n.d.; Manuscript No. 270/24, n.d.) The scholarship



candidates had to meet the following prerequisites: having the age limit between 18-25, a diploma in natural sciences or mathematics, and being familiar with the Persian language. In 1973, eight Afghan students succeeded to get the German Federal Scholarship. As a German university offered the scholarship, the candidates did not have to take the entrance exam and could register in April or October. In addition, as they could not work in Iranian public hospitals after graduation, they were charged tuition fees for three years in correspondence to the type of scholarship awarded. (Manuscript No. 270/24, n.d.) It is worth mentioning that nursing schools, like Tehran Nursing School and Ashraf School, awarded first and second-degree medals to the top ranks of students and graduates to encourage other students. (Manuscript No. 270/687, n.d.; Manuscript No. 297/30731, n.d.)

On 1/9/1973, the Nursing School offered a scholarship for seven Iranian students to study in Germany. Student admission was made in April and October. In this course, the prerequisites for entry were having a diploma in mathematics or natural sciences, the age limit between 18 -25, as well as passing the exam. Students awarded the scholarship took a general course only. Seven people selected for the German scholarship studied in one of the following fields: nursing, midwifery, assistantship and medical engineering. (Manuscript No. 270/24, n.d.)

At the same time, the Higher School of Midwifery gave admission to nursing graduates twice a year for specialized midwifery courses, lasting for 18 months. In 1973, the candidates for these courses could also benefit from a scholarship given for a degree equivalent to a bachelor's degree. These courses began in May and October. The locations for the courses were two centers for chemistry scholarships in Mashhad, five for nursing and midwifery scholarships, and two for medical technical assistance scholarships in Tehran. (Manuscript No. 270/24, n.d.)

Despite nurses' various responsibilities in the medical centers, they did not enjoy employment benefits. This led to their protests against medical centers and the parliamentary legislation. The followings comprised some of their requests: hourly leave under the employment law of the country without being subtracted from the annual leave, nurses' weekly leave without being subtracted from the annual leave, keeping 15 days of annual leave for emergencies, considering sick leave apart from weekly leave, having equal salary with other hospital or university staff, accepting their leave requests on the phone in the case of emergency, reducing night shifts from 12 hours to 8 hours of work and 4 hours of rest, the right to use insurance during illness, and separating the nurse in need of hospitalization and rest from other patients. (Manuscript No. 270/24, n.d.)

The authorities of the medical centers attributed most of these problems to the workloads of the nurses in the private sector, and the lack of proper principles applied, leading to their being less disciplined at work. Each nurse had to work one week a month on night shifts, being liable to double fines for not attending the night shift. Two days off a week was allocated to 40-hour work a week, and the law was enforced equally in all medical hospitals. The point that nurses could take two days off per week caused a shortage of nurses. The hospital physicians issued sick leaves and a report was provided to the hospital and faculty management. They would not be issued for minor and outpatient illnesses because sick nurses could function well by taking the prescribed medication at work. In many cases, sick nurses refused to be hospitalized, causing the rejection of their sick leave certificate. Their refusal mainly was because of the fact that the nurse had to work in another medical center, and hospitalization prevented her from going to her second



job. The nurses' reasons for not attending night shifts mainly were family problems, and illness. However, the hospital management considered the dissatisfaction and difficulties of the night shift as the main reason for this. (Manuscript No. 270/24, n.d.)

Initially, due to the small number of nurses, those who had learned nursing by practice or taking short courses were hired in medical centers. In addition, at the beginning, the length of the training course for new volunteers to this profession was variable; nevertheless, over time the courses were upgraded from one year to three years and finally four years, equivalent to those for a bachelor's degree. In addition to teaching nursing, the school curricula covered teaching practical nurses, childcare, assistant nurses, pediatric nurses, and mental health care nurses. This led the Ministry of Education to establish a school to train nurses to lower the nursing staff shortage. The practical nurses were trained to work under the supervision of nurses. However, the practical nurses usually worked independently due to the shortage of nurses. (Manuscript No. 270/24, n.d.) By 1976, 48 nursing courses were offered and 1650 nurses graduated with a bachelor's degree. In addition to Ashraf Nursing School, in 1975, a nursing home was constructed for the Iranian Nurses Association to hold their meetings there. (Pahlavi era exhibition, 1976)

It seems that the fiscal budget of medical school determined and covered the nurses' salary. In December 1973, the monthly wage of nurses was 16,000 Rials. The nurses had a two-year commitment to working in medical centers affiliated with the medical school. This indicates the cooperation between the nursing school and the medical school of the University of Tehran. After fulfilling their commitment, they would receive their qualifications. (Manuscript No. 270/334, n.d.)

As mentioned above, medical centers and institutions in Iran had many limitations in providing medical services, primarily due to the lack of equipment and technical staff. Despite the undertaking of several public and governmental institutions in training and educating specialized staff of nurses, paramedics, etc., the country still faced challenges in providing skilled and specialized medical staff. In 1973, Jahanshah Saleh Hospital increased the number of hospital beds from 222 to 245. For 25 additional hospital beds, it required nurses, assistant nurses and male staff; but it was not possible to supply these workforces. (Manuscript No. 220/3732, n.d.) The followings would add to the shortage of medical staff in the country: if necessary, nurses, with the permission of Ashraf Nursing School and the place of their service, attended such programs, as conferences, national and international gatherings to provide medical services to representatives and participants in the programs. Zahra Alinejad, for instance, attended the 22nd International Conference of the Iranian Red Cross Society (Manuscript No. 270/24, n.d.) After transferring the clinic of Bahrami Hospital to the new building, about 20 emergency beds were allocated for general and infectious patients in two separate and 24-hour wards. However, due to the shortage of nursing staff, emergency patients were sometimes hospitalized and monitored in the clinic for 24 hours. According to the available data, the number of nurses in this 24-hour hospital was limited. This made it difficult for them to perform all the nursing responsibilities in caring for patients. Furthermore, due to the lack of sufficient nurses in the Iranian medical system in the Pahlavi period, many assistant nurses performed nurses' duties (Table 1).



**Table 1:** Number of Bahrami Hospital nurses in 24 hours (Manuscript No. 270/24, n.d.)

Shift	Technical supervisor	Assistant nurse	Maid
Morning Shift	-	2	1
Afternoon Shift	-	2	1
Night Shift	-	2	1

From four pm on, assistant nurses gave the medications to the patients and nurses took care of the parents and companions of the outpatients and hospitalized patients in the emergency room. This caused the nurses to be diverted from their main duties. (Manuscript No. 270/24, n.d.)

Another nursing school affiliated with the Imperial Organization was the Farah School in Ramsar. Unfortunately, no information has been obtained since the establishment of this school. The school was run by two nurses sent by the University of Tehran since 1962. Parvin Dokht Ghaderi was the head of the school. In 1974, she was summoned to work in Soghari Jamali University and the other nurse of the school was transferred to Reza Pahlavi Medical Center. Their absence led to the closure of the school in Ramsar. Therefore, it was requested that the Imperial Organization agree to let them continue their activities in the school. Their activity was considered one of their commitments and their degree was equivalent to a bachelor's degree. (Manuscript No. 220/16659, n.d.)

At the Great Tehran Nursing Conference in September 1956, a two-year training program for educating assistant nurses was also presented. Following the university curricula, the four-year nursing program was launched in Tehran in 1965. In line with this, other schools also made some revisions to their educational curricula. In 1970, a one-year public health nursing course was established in the Faculty of Health, University of Tehran. (Manuscript No. 297/44629, n.d.; Motameni, 1971, p. 8). During the years of operation of the nursing schools, these centers' graduates gradually increased and were recruited into the medical system. The following table exhibits the number of nursing graduates (Table 2):

**Table 2:** The Number of Nursing Graduates from 1941 to 1970 (Motameni, 1971, pp. 1-10)

Year	The No. of Graduates
Before 1941	99
1941-1945	45
1946-50	57
1951-55	299
1952-60	515
1961-65	906
1966-1970	1205
Total	3126

Many nurses did not work after graduation for various reasons. This comprised about 5% each year. The third education program was assumed to have 1287 nurses, but the



number of the graduates decreased to 1235. In addition, a number of the nursing graduates worked as village midwives or as smallpox and quarantine technicians in health service centers. This made it necessary to train some assistant nurses in providing these services, and some predetermined activities, under the supervision of nurses. But this did not put into force mainly because of the lack of sufficient nurses; hence, they operated independently. There were about 3126 graduates and trained nurses from the nursing school, and 683 nurses with a two-year nursing education. In total, about 4,000 nurses were engaged in medical services in different regions and centers in Iran up to early 1971. (Motameni, 1971, pp. 1-10). The fourth plan (1968-1972) was scheduled to train 2020 nurses (Table 3). (Motameni, 1971, pp. 1-10)

**Table 3:** The Number of Nurses and Their Performance in the Fourth Program (Motameni, 1971, p. 10)

Year	No. of graduates predicted	No. of graduates
1967	360	331
1968	390	231
1969	390	353
1970	420	471
1971	460	535
Total	2020	1921

As mentioned above, most nursing schools in Iran in the Pahlavi II period were established by non-profit and charitable organizations, such as Iran's Jamiat-e Shir o Khorshid and the Imperial Organization of Social Services. During this period, one of the most important medical and health centers in Shiraz was built by a benefactor, Mohammad Namazi. (Manuscript No. 350/6694, n.d.) On May 23, 1955, the Pahlavi II officially inaugurated these centers. The hospital and school were officially affiliated with and supervised by Pahlavi University since 1964. (Manuscript No. 350/6694, n.d.; Manuscript No. 270/554, n.d.) (Figure 1). Until September 23, 1963, the American nurse, Irene Blincharde and the head nurse, Mary McGregor, were in charge of Namazi Higher School of Nursing. They worked there as the head of the school until the end of their contract. (Manuscript No. 293/39111, n.d.).



Figure 1. Namazi Higher School of Nursing (Manuscript No. 350/6694, n.d.)



### Assistant Nursing school

In 1955, the first assistant nursing school was established in Tehran with a one-year course. Gradually, other schools were established in different parts of the country. (Manuscript No. 297/44629, n.d.) Pahlavi foundation, one of the charitable organizations of Pahlavi dynasty, proposed the establishment of this school. The school started working by 25 students in 1967. In 1968, Pahlavi Foundation financed the school's building with a credit of 1,200,000 Rials from the years 1968 to 1970. This school was established to train assistant nurses to provide the technical staff needed by Bonyad Hospital (Cardiovascular Hospital) and, if possible, to provide nurses for other medical and health institutions in the country. By the end of the second quarter of 1968, 25 assistant nursing students were studying in different National Oil Company Hospital wards. In the academic year 1968-69, out of 47 volunteers, 33 were admitted to start their education from October 1968. In 1969, 56 students were admitted, from which 24 began their study in the same year and 32 in the following year. In the first half of September 1969, 23 nurses graduated from the school for the first time. (Manuscript No. 220/16659, n.d.) In 1969, 31 people graduated from the school. The school had an average of 30 graduates each year. In 1970, 47 people were admitted, amounting to 68 students, in total. (Manuscript No. 220/16659, n.d.) In 1971, there were 54 volunteers. In the year 23/09/1973, 50 students were studying in the assisting nursing school of the foundation; 26 students started their course in the first year and 24, in the second year. On 23/08/1974, 76 candidates participated in the entrance exam, of which, 31 were accepted and their classes began on November 23, 1974. Five of them dropped out of school for various reasons, including family problems, and 26 started their course. The students of this boarding nursing school enjoyed benefits such as food, clothing, and scholarships. The total hours of the course comprised 335 hours. Although most of their courses were related to patient care, they also studied courses, such as Persian literature and history. After several months of attending theoretical classes, they took practical classes. The students, in addition to the regular nursing courses for cardiovascular diseases, also taught courses and skills so that they could work in the cardiovascular hospital. Building and equipment costs were financed by the court and the National Oil Company, which were subject to the laws of the Supreme Council of Culture and the Nursing Department of the Ministry of Health (Table 4). (Manuscript No. 220/16659, n.d.)

**Table 4:** Number of Students Admitted to the Assistant Nursing School of Pahlavi Foundation from 1967-74 (Manuscript No. 220/16659, n.d.)

Admission Year	No. of admission
1967	25
The second three months of 1968	25
October, 1968	33
1969	24
1970	47
1971	54
1974	31 admitted, 26 enrolled
Total	239



## Conclusion

Scientifically speaking, nursing services began with the activities of foreign religious missionaries in the late Qajar period in Iran. The development of nursing schools carried out by these people in important cities of Iran and the continuation of their activity up to the Pahlavi II period showed the importance and effectiveness of their actions in the field of health and nursing services. Nursing education and services underwent significant changes during this period. To begin with, the government support and provision of facilities to those admitted to the field of nursing were effective in encouraging people to register in this field. In addition, in the Pahlavi I period, nursing schools were under the Ministry of Education and Culture supervision, indicating that nursing schools were state-owned.

In the Pahlavi II period, in addition to the Ministry of Health, charitable and non-profit organizations, such as the Imperial Social Services Organization, the Jamiat-e Shir o Khorshid, benefactors and well-to-do people established schools and trained nurses in their homeland. In cooperation with some countries, such as Germany, Britain, and the United States, the Imperial Organization tried to use modern science in training Iranian nurses. Although this course can be considered as the beginning of scientific and modern programs in educating and training nurses in Iran, because of the lack of a state comprehensive plan for providing nursing and nursing staff for health and medical centers, nursing schools faced a limitation in the number of admission. Moreover, as well as insufficient centers required for nursing education in many provincial centers, there were cultural and social restrictions on the girls' enrolment in school, especially in the Pahlavi I period. Hence, Iran's health centers faced a shortage of nurses. Moreover, the available resources show that less attention was paid to the role and presence of nurses as an important and effective force in improving the quality of health and hygiene for the betterment of patients.

## Conflict of Interest

None.

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