

ORIGINAL ARTICLE

Reflecting on Obstacles and Solutions to Improve Health and Hygiene in Primary Schools from 1925 to 1941 A Case Study: Exposure to Trachoma Disease

Abstract

The transformation of the public and individual health system from 1925 to 1941 was known as one of the pillars of the development and acceleration of the modernization process in Iran. Despite this expansion, public health and collective health, especially in schools, found a close connection with the underdevelopment of the country. Trachoma disease was one of the most common and contagious diseases among elementary school students, and the government tried to take some measures to deal with it, such as spreading public awareness, creating a skilled workforce through the training of teachers and school staff, and applying comprehensive monitoring of students' health in the family and school. Despite these measures, there were challenges, such as a lack of medicine, a lack of skilled workforce, and financial problems that negatively affected the quality of the government's actions. This research raises the central question: How did trachoma disease in schools become a serious issue for the government? The hypothesis is that although the government succeeded in dealing with Trachoma in primary schools, this process was gradual, slow, and temporary due to the underdevelopment of the country's infrastructure.

Key words: Reza Shah Government, Schools, Health, Trachoma, Disease

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Introduction

The modernization process during Reza Shah's reign (1925 to 1941) encountered many difficulties. The realities of Iran, as an underdeveloped society, showed that despite the government's desire for development and modernization, it faced many obstacles and difficulties in this field. One of the government's most important programs was to review the traditional structure of schools and create new schools with new approaches. This was considered the most fundamental principle of development because the political activists and elites of the period and the government should take care of this adverse situation first. The goal was to transform the old structure of the schools to enable the training of new forces.

In fact, the vital issue for the government was the transition from the traditional and pre-modern structure of home schools to modern schools. This issue required the creation of necessary platforms. For example, it was necessary for the educational courses and the educational mechanism to become methodical, for human resources to achieve the new educational goals, and for the space and place of education, laws, and educational regulations necessary instructions to be approved. In addition to these, deep reforms had to be made in the field of environmental health and the health of students and school staff. In this way, the issue of school health and hygiene became one of the government's most important programs from the beginning of the modernization program. Because infectious diseases were prevalent among students, the quality of health and health status of students was unfavourable. Also, environmental health and personal hygiene in schools needed meticulous monitoring. This situation was evident in most cities of Iran. One of the most critical diseases in that period was Trachoma. Most resources, capital, and efforts were spent to deal with this problem. In practice, it became evident how the pre-modern and underdeveloped state of Iran posed difficulties and challenges in modernizing the country. This research aims to examine the government's approaches to dealing with Trachoma in primary schools by examining the government's health and hygiene plans.

In the field of health and hygiene in the Pahlavi period, significant research had been done, but the perspectives of this research still needed to address this issue. The book "Modern Iran" and its educational system, written by Issa Sediq (2017), is a search into the field of educational developments of the Pahlavi period. In the book "Health and Actions of Health Charities during the Period of Reza Shah" (2009), Mansoureh Etehadieh and Elham Malekzadeh have examined some of the actions of people and charities active in the field of health and treatment during this period. The article "Municipality and Public Health in the First Pahlavi Period" by Soheila Torabi Farsani and Morteza Ebrahimi (2013) investigated the issue of public health in the period of Reza Shah. "The evolution of medical science and health in Iran from the Constitution to the end of the first Pahlavi" by Hossein Abadian and Fouzia Jawanmardi (2017) also reflected on the part of the medical developments in Iran in the period from the Constitution to the end of the Pahlavi rule. Plenty of research conducted so far focused on the health issue, but they have yet to specifically investigate the issue of the involvement of modern primary schools with diseases.



Health status of schools during the transition from Qajar to Pahlavi

The legacy of Qajar in terms of educational spaces and study places was old and traditional. That situation was a serious challenge to the country's modernization process during the Pahlavi period. Therefore, in the first years of the Pahlavi regime, the need for extensive reconstruction of traditional educational spaces was raised. It was obvious that these old infrastructures were in crucial need of renovation. These spaces were unsanitary. However, in terms of architecture and internal structure, they were not following modern educational requirements, and the student's health was in danger. Therefore, it is possible to consider the Qajar period's traditional educational spaces and places as one of the essential parts that started their modernization at the beginning of the Pahlavi rule. (Document No. 297-34895, 1922)

The Supreme Council of Education, the highest institution in education, tried to create fundamental changes in the quality of educational spaces by approving some laws. This council wanted to provide better educational facilities. Therefore, it was decided that some houses be converted into schools. It was in this regard that the Minister of Education announced that "a few houses should be purchased every year in order to be used as public schools." (Discussions of Supreme Council of Education and Training, 1924, Meeting No. 3, p. 9) For this purpose, the council proposed to increase the budget of the Ministry of Education annually. "The government should decide on the location of public schools" This issue was raised in the next meetings of the council. (Discussions of Supreme Council of Education and Training, 1924, Meeting No. 10, p. 41)

In this context, articles published in some magazines suggested the need to change these spaces. "Kooshesh Newspaper" was one of these magazines. This publication investigated the problems of these old spaces and their shortcomings. According to this newspaper's authors, educating children in these schools was impossible due to the lack of health guarantees. In addition, it was mentioned in one of these articles that "unfortunately, the officials of the Ministry of Education have not recognized that old houses and old buildings are not suitable places for schools. School buildings should be built in a special way and based on a separate plan. These dark and dimly lit rooms with low ceilings and wet courtyards are unsuitable for students. Although colorful tiles are beautiful in their architecture, they are not standard in terms of hygiene. The government has to pay a lot of money every month for the rent of public schools. Suppose the government tries to build new schools on better grounds based on proper standards and health principles. In that case, this can have a greater impact on the vitality of educational environments because the health of the environment and its beauty will have an important impact on the quality of the activities of employees and students in schools. Teachers and students will also be saved from dark, closed spaces that look like prisons. This action will also save the government money in the long run. Because in the future, the government will be exempted from paying these heavy expenses to charter schools, and the budget of this part can be spent elsewhere." (Kooshesh Newspaper, 1923, p. 1)

In the 48th session of the Supreme Council of Education, the issue of the location of schools was once again raised, and various opinions were expressed about it. For example, Mr Lahichi emphasized: "Houses that are strong and immune should be bought for public schools." The Minister of Education also discussed this issue with Dr. Millespo. He thought: "Those properties on which the government should spend money for their



maintenance are better to be handed over to the Ministry of Education so that they can select the most suitable ones.”(Discussions of Supreme Council of Education and Training, 1926, p. 178) The documents show that this program was implemented but had a very limited scope. School buildings were divided into four categories according to the types of ownership.

The first category was the buildings owned by the Ministry of Education. The second category was buildings rented by the Ministry of Education, and the owner was obliged to repair the elementary school building or fix its deficiencies and weaknesses by increasing the annual rent. The third category was buildings dedicated to education or buildings that did not have a specific owner, and the endowment organization gave it to the Ministry of Education. The fourth category was government buildings. Although the regulations of elementary schools specified the leading indicators for measuring the level of safety and health of schools, many educational spaces still did not have these important criteria. This situation can be clearly seen in the reports that the school authorities have registered. For example, heads of education departments and principals of primary schools, when they wrote their letters and reports to the ministry, pointed out the poor condition of school buildings. School inspectors were another group that prepared reports about the poor condition of schools. Nevertheless, the third group was doctors responsible for supervising the health and safety of schools on behalf of the Ministry of Education. Also, police officers, military commanders, governors of regions, and heads of various departments who sometimes visited elementary schools reported this situation. For example, according to the report of the Gorgan Education Department in 1306 AH/1927, the “Strabad” school was in an awful situation, and due to the lack of funds and financial weakness, all its rooms were insecure and unhygienic. (Document No. 297-28024, 1927)

The condition of schools in Kashan was also poor during this period, and only their roofs were repaired several years ago. It was an old building with a small yard that did not get enough light in its rooms. They had a small veranda, threatening the children if they were overactive and playful. Such rooms, of course, had a history, and several students had been thrown down before. (Document No. 297-38054, 1928)

In addition, school toilets also had many problems. This inappropriate situation was reflected in the memories of some characters of that period. “The school washroom consisted of five toilets opposite the entrance door. When entering the school, the first thing anyone faced was the toilet divided into five parts by short walls. These doorless toilets were known as the Five Brothers toilets. These toilets had a pit that was seven meters long and 25 cm wide. The depth was one meter. These toilets were divided into five parts by short walls. The wall between the two toilets was so short that we could see the inside of the side toilet from the top of the wall. We had no means to clean ourselves. Only teachers could use the water container. The sewage of this toilet also went into a pit located inside the school. They brought some soil, and after mixing the soil with sewage materials and stirring them, donkeys carried them to gardens for agricultural purposes. These materials had an awful smell. Due to the absence of chemical fertilizers, they had an extraordinary value in that period, and farmers paid for them” (Mortazavi, 2017, pp. 20-21).

Between 1304 and 1305, the personal hygiene of students and its supervision in schools was another challenge for the authorities. Because there was much environmental pollution in primary schools and public roads, the situation is described in the memoirs: “On



Saturday mornings, children line up. The school administrators inspected their hands and nails, and if their hands were dirty or had long nails, they washed the children's hands in a bucket of water and forced them to drink from it. This rigid inspection caused the children to be agitated on Saturday mornings. Children's hand hygiene at school was rigorous. The goal was to force the children to observe hygiene and to go to the bath on Fridays. The baths were also in bad condition. These baths were for public use, and their water was changed once or at most twice a year. All kinds of skin diseases and, especially Trachoma, eye diseases and, venereal diseases and, multiple infections, typhoid, cholera and, seasonal diarrheas, malaria, were prevalent. The death rate of children was high. Approximately three out of ten children born in each family would survive. Due to the lack of hygiene, insects such as lice were found everywhere. Their bite was painful and itchy."(Mortazavi, 2017, pp. 31-33)

Compilation of school regulations: monitoring the health of students

Students suffered from many illnesses and diseases, and their prevention and treatment were challenging. It became important to compile the elementary school regulations in such a situation. Many sections of this regulation were the description of tasks and explanation of the necessary approaches that had to be considered to diagnose diseases among children and improve their health condition. In this regulation, the following issues were emphasized: the temperature, the food and water, the way the students sit and the distance between their eyes and the book, as well as the supervision of the architecture of the school building. (Etela'at Newspaper, 1931, p. 3) In 1314/1935, the school health department was opened. "In this office, it was decided that eight doctors and superintendents would be present and provide services to students in fields such as ophthalmology, dentistry, anatomy, and pharmacy. The doctors of this centre had the duty to examine the students at the time of registration and then issue a certificate of "certificate of health". Also, in cases such as cleaning the schoolyard and classrooms, drinking water, toilets, and cleanliness of the students, they should carry out a complete investigation, isolate the students suspected of illness and remove them from the school temporarily. (Etela'at Newspaper, 1936, pp. 4-5)

In addition, programs were developed to improve students' mental vitality and physical health. According to the law passed by the parliament on September 14, 1306/1927, sports became mandatory in schools across the country. (Hakim Elahi, 1967, p. 27) The compilation of that regulation prioritized monitoring students' health and emphasized the duties of the school and family in monitoring and providing solutions. In fact, the goal was to diagnose the disease of primary school students and ensure the cleanliness of the school environment. Therefore, the Supreme Council of Education approved the need to monitor the health issue and emphasize the duties of schools and families, and its rapid implementation in schools was followed. The system specified two types of supervision. At the same time, three organs of the Ministry of Education, the General Department of Health and Family were considered responsible. The main task was the responsibility of Schools. The General Health Department was considered most responsible, followed by the family. In the primary school regulations, the health duties of the principal of the primary schools were also defined. Suppose a child was infected with a contagious disease at school. In that case, the principal must temporarily remove him from school; the student



could return to school after treatment with the doctor's approval. Also, it was emphasized that if the school administrators observed ill students, they must send the child home immediately. It was emphasized that students' families had to submit two inoculation and health certificates at registration. (Discussions of Supreme Council of Education and Training, 1929, p. 83) Then, having entered the school, students had to keep their heads and hands, clothes, and school supplies clean. (Discussions of Supreme Council of Education and Training, 1929, pp. 88-89)

With the institutionalization of the educational system, monitoring of the health status of students and educational environments increased. The goal was to keep the schools clean. This process gradually improved, and its quality improved as well. In the school health regulations, a part of the content was dedicated to this issue, and a more detailed description of duties was compiled for the school officials as well as the health department. In the new system, administrators targeted the students' health, cleanliness, and physical education. On the other hand, since the students were in direct contact with the teachers in the classroom, the teachers had to closely observe their physical and health conditions and report their health conditions to the school principal. Also, the doctors of the Ministry of Education were required to examine the students and staff of the school before noon every day, except on holidays, as recommended by the principals, and visited the elementary schools in the afternoon to examine the students (Discussions of Supreme Council of Education and Training, 1934, pp. 230-238)

This issue gradually became more important because the continuous supervision of doctors in schools and employees became necessary. In the 408th meeting of the Supreme Council of Culture in 1940, the duty of the doctors of the Ministry of Culture was to supervise the primary schools every day, except for holidays, to examine the students and employees, and to treat the patients referred by the school principal. It was also emphasized that if the elementary school had violated the rules, the issue should be immediately reported to the inspection department. (Figure 1) (Discussions of Supreme Council of Education and Training, 1940, p. 196)



Figure 1. Trachoma disease (Valadkhani, 2013)



Trachoma¹ and its impact on the school development process

Among the common diseases in Iran, Trachoma was considered a unique disease. The high transmission speed, the rapid impact on the students' vision, and the problematic treatment made Trachoma a priority for the educational structure. The timely diagnosis of this disease was a necessary response, and the effort to eliminate it involved several government agencies simultaneously. The disease is defined as follows: Trachoma is one of the dangerous eye infectious diseases, which is often combined with other diseases of the eye's cornea" (Kooshesh Newspaper, 1934, p. 2). Complications of this disease include corneal ulcers, boils, excessive hair, eyelid turning inside the eye and eyelid turning outside the eye, narrowness, and corneal spots. This disease causes extreme vision loss and sometimes leads to blindness if it is not treated promptly. (Salname ye Pars, 1934, p. 133)

Regarding the transmission of this disease, it was said that if the eye fluid of a sick person gets into the eyes of humans or some animals or if it gets on the personal belongings of a healthy person, such as his handkerchief, towel, bedding, and pillow, it would also infect them. (Kooshesh Newspaper, 1941, p. 3) As the disease can be transmitted rapidly and turn into an epidemic², the authorities constantly warned against it in publications; such warnings aimed at making people aware of this disease and its complications. It was also emphasized that trachoma patients should observe specific health tips. Otherwise, they would put the family members in danger. Unless they wash their hands very carefully with soap and immediately disinfect them with an antiseptic solution, such as alcohol, their family members will get the disease. (Salname ye Pars, 1934, p. 133)

After studying this disease and getting to know its origin, the officials found a significant relationship between the social status of families and the rate of trachoma disease. On the one hand, factors such as not observing cleanliness and exposure to dust, direct sunlight, and flies were among the most critical factors in spreading the disease. However, the low environmental and personal hygiene levels in low-income and disabled families increased the risk of contracting them. The head of the country's health stressed that trachoma disease in Iran, like other parts of the world, was more prevalent in low-income families who failed to observe proper hygiene or lived in poor dwellings without proper ventilation. (Kolune,

1- This disease is produced due to the entry of a particular microbe (trachoma virus) into people's eyes. In this way, many grains are found behind the eyelid of the affected eye, which gradually covers the entire surface of the eye. (Bastan, 1944, p. 3) One of the factors that spread Trachoma is the fly, which can spread Trachoma through its hands, feet, and proboscis. Trachoma virus can be transmitted in the fly's body for 24 hours. Lice is also one of the spreading factors, as the trachoma virus remains transmissible in the intestines of lice for six to seven days. (Bastan, 1944, p. 8) The personal context is also very effective in trachoma transmission. For example, weak people are more susceptible to Trachoma than strong people. The reason why children are affected earlier than adults is the same issue because there are more lymph nodes in children than in adults. Generally speaking, children are infected sooner than adults because they interact with each other more than adults. For example, an infant is often in the mother's lap, and if she is infected with Trachoma, she can easily transmit the disease to the child. Also, older children can spread this disease because of playing with other children. (Bastan, 1944, p. 9)

2- The following statistics show the spread of the Trachoma, which was extracted in 1928 by Dr Lasan Al-Hikma Shams and given by Professor Shams to the Dutch International Congress, which was formed for the Trachoma.

Azerbaijan has a population of 2,750,000 people, and the number of trachoma patients is 412,000.

Khorasan and Sistan have a population of 1,250,000, and the number of trachoma patients is 625,000.

Fars and Benader have a population of 1,500,000, and the number of trachoma patients is 750,000.

Kerman and Baluchistan have a population of 1,250,000, and the number of trachoma patients is 625,000.

Isfahan and Bakhtiari have a population of 1,250,000, and the number of trachoma patients is 187,000.

Kermanshah and Kurdistan have a population of 1,000,000, and the number of trachoma patients is 500,000.

Lorestan and Khuzestan have a population of 1,500,000, and the number of trachoma patients is 750,000.

Tehran and aragh have a population of 1,000,000 people, and the number of trachoma patients there is 150,000

Gilan and mazandran have a population of 1,000,000 people and the number of trachoma patients there is 150,000 (Farhi, 1937, pp. 8-9)



1934, p. 9) The statistics provided by the official bodies on the spread of trachoma disease showed the social and economic realities, the level of existing infrastructure, and the difficulties of dealing with this disease. These statistics showed that despite the efforts to control this disease, a large part of the cities and villages of Iran were seriously afflicted. A report was prepared as follows: the incidence of Trachoma in southern ports and Khuzestan, especially Shushtar and Dezful, is still high, and 90% of the population still suffers from it. 50% of the residents of Khorasan, Sistan, Fars, Kerman, Baluchistan, Kermanshah, Kurdistan, Lorestan, and 25% of the people of Azerbaijan, Isfahan, Bakhtiari, Tehran, Mazandaran, Gilan had Trachoma. (Kooshesh Newspaper, 1941, p. 3) While these statistics showed the extent of the spread of trachoma disease, they also revealed another reality: the level of backwardness of the cities of Iran and their inability to control and eradicate the disease.

Implementation strategies and guidelines for dealing with Trachoma in schools

The government considered several solutions to reduce the severity of Trachoma in primary schools. The purpose of these solutions was to increase public awareness in order to control Trachoma. These multiple solutions consisted of training people, continuous warnings, and raising the level of awareness that was made known to the public through publications.

1- Training of specialist staff

In order to control Trachoma, the government launched some programs, such as holding training classes and raising awareness in schools. This made cooperation between several ministries mandatory. Therefore, the General Department of Health and the Ministry of Education trained specialist staff. One of the first solutions was to hold training classes for school teachers. This program was intended to increase the level of awareness of school staff about Trachoma and to familiarize the human resources present in primary schools with some preventive measures against this disease. In this regard, the head of the country's health department stressed that his department had opened some therapeutic centers where the disease was prevalent. In addition, provincial doctors were trained in this field, and medicine was sent to that area. This policy was shown to pay more attention to school students. In this way, sick students could be treated and prevent the disease from spreading to healthy members of the families. However, in order to implement this program, doctors could not directly address the condition of students across the country. Therefore, it was decided to get help from teachers familiar with the disease, its symptoms, and treatment methods in each school. For this purpose, the department decided to organize a special class in Tehran in the summer so that one or two educated ophthalmologists could give the necessary information to the teachers. Therefore, he requested the Ministry of Education to inform all the schools of the capital and provinces about this issue in order to organize a training class for these volunteer teachers. (Document No. 297-23596, 1935, February 13)

The government also provided facilities to encourage applicants to work in schools. In this way, the volunteer teachers received 100 Rials for three months, and after passing the exam, they received a monthly salary of 50 Rials. Instead, they had to pledge to stay in the school for three years and three days a week, an extra hour and a half, treating the sick



with the supplies sent to them by the General Health Department. If volunteers refused to treat patients until the end of the contract, they should have returned their education expenses. (Document No. 297-4676, 1935) One of the important points in this plan was the participation of women. The lack of trained people caused the recruitment of some women in the big plan to deal with Trachoma in Iran. (Document No. 297-23596, 1935, June 30; July 6)

The initial training courses were held at Dar al-Funun. The candidates learned theoretical lessons from 6 to 9 pm. They also examined patients in the morning and evening at the army hospital, Razi Hospital, and the country hospital under the supervision of first-class doctors. After the training, it was time for the examination, comprising three sections. The first was a practical exam in the hospital, the second was an oral exam, and the third was a written exam. (Schools health opening ceremony, 1936, p. 625)

This course was the first step in training the forces that were supposed to work in all cities of Iran to deal with Trachoma in schools. Therefore, in the regions of Tabriz, Ardabil, Hamadan, Khoi, Astara, Damghan Gorgan, Qom, Yazd, Zanjan, Kermanshah, Malayer, Arak, Kashan, Golpaygan, Kurdistan, Gilan, Isfahan, Kerman, Khorasan, Qazvin, southern ports (Busher). Fars, Ahvaz, Semnan, and Khorram Abad teachers started the fight against Trachoma. (Schools health opening ceremony, 1936, p. 625)

The deployment of trained forces in Iranian cities made a series of supervisions, reports, supervisory instructions, and job descriptions mandatory. The goal was to improve coordination between schools and different departments. This program tried to guarantee health and improve the quality of health in primary schools by curbing Trachoma. The trained people went to primary schools after returning to their workplaces. They received the required medicine from the health department of their region (Document No. 297-23690, 1936, June 2) and handed over its approval to the local health chiefs. They also submitted comprehensive reports of monthly actions to the ministry during their activities. These reports included the number of clients, the amount of medicine used, the amount of medicine left, and the result of the work. Also, after the end of each three months, they had to submit a comprehensive description of the above cases to the health care chiefs. (Circulars, 1938, p. 89) In addition, in some cities, such as Rezaieh, a public clinic was established in the Department of Education, and teachers were taught some therapeutic and preventive methods for dealing with Trachoma and other eye diseases. Two days a week, sick students with symptoms of Trachoma and other eye diseases were treated. One day was dedicated to students suffering from ringworm and skin diseases. In order to contribute to this project, some teachers volunteered to attend the office to learn the methods of treating Trachoma. (Document No. 297-25495, 1935) Over time, the office's working hours increased, serving students every afternoon. (Document No. 297-25495, 1936)

2- Printing special pamphlets about Trachoma

These pamphlets for trained people and school staff contained information and knowledge about dealing with Trachoma. As an example, Dr. Fathullah Farhi's Trachoma booklet was published, comprising a collection of articles in the daily newspaper. (Document No. 297-19859, 1935) This treatise was a specialized and codified work about Trachoma disease, containing a lot of general knowledge, specific information, and some preven-



tive strategies and instructions. In addition, it was available to a large part of society, especially teachers, families, and officials. It was during this period that Dr. Bastan³ studied Dr. Farhi's Trachoma treatise, and found its content suitable. (Document No. 297-37024, 1936) Then, the Ministry of Education ordered to distribute copies of this treatise among the teachers. (Document No. 297-19859, 1935) Fifty volumes of Dr. Farhi's Trachoma treatise were published in cooperation with the publishing and book printing companies. Seventeen copies of it were sent to the institutions in the capital. Thirty-two copies were sent to the Provincial Education Department, and one copy to the Ministry of Education. (Document No. 264-1619, 1937)

The government's problems in fighting against Trachoma

In addition to numerous difficulties, Trachoma disease hindered the improvement of educational institutions. This disease revealed Iran's infrastructural problems in economy, transportation, and health and medical requirements. He also specified that the lack of development in Iran prevented it from removing the obstacles in the short term. Therefore, making rapid changes in the educational system was impossible.

1- Lack of trained teachers

One of Iran's most important structural weaknesses at the beginning of the modernization process was the lack of specialized and trained experts in various fields. The reason was the backwardness of Iran and the lack of professional educational institutions. In that period, except for Dar al-Funun and some new educational institutions, such as European schools, no other educational and specialized institutions were active in Iran's educational environment. Even the Dar al-Funun school, which was established to meet the organizational, administrative, and specialized needs, could not train experts, and it almost failed. (See: EhteshamolSoltaneh, 1987, pp. 345-344; Dolatabadi, 1983, pp. 221-222) Therefore, at the beginning of Pahlavi's rule, the government's plan to start national modernization faced great difficulty in training experts. The government tried to provide the required human resources through some cultural programs, such as establishing educational institutions and universities or sending students abroad. However, this was a gradual process. Consequently, providing trained people to fight against Trachoma was also difficult. Studying the documents of the period showed that the lack of skilled people in regions like

3- Dr. Nosratullah Bastan was born in 1903. He completed secondary education at Dar al-Funun and higher education at Tehran Medical School in 1928. After that, he went to Paris, continued his studies at the University of Bordeaux, and wrote his thesis on Tangnabri. He returned to Iran in 1936 and held many jobs. For example, he worked as the Head of Ophthalmology at Health Schools, the Head of the Ophthalmology Department at Number One Municipal Hospital and Ibn Sina Hospital, the Head of the Ophthalmology Department at Waziri Hospital, Professor of Clinical Ophthalmology, and Professor of the Ophthalmology Department at Amir Alam Hospital. Among his works, we can mention eye diseases and their treatment, Trachoma, eye, and its diseases. (Merslund, 1990, p. 10.)



Kurdistan was one of the most important problems in dealing with Trachoma. A letter from the Ministry of Education in 1936 stated that only one officer was on duty in Kurdistan. To prevent the spread of Trachoma, at least three teachers in that region were needed to participate in annual training classes. One teacher had to be selected from public primary schools and sent to the center. (Document No. 297-25540, 1936) The report of Dr. Paya, the head of the Arak Health Department, to the General Health Department also confirmed that people trained in Trachoma failed to work in this field. Three therapist teachers in Sultanabad who completed the therapy course one year before did not do the therapy work this year because two changed their posts, and the third one was employed in the National Bank. Only one substitute was found who could serve there. Because the patients needed daily care, Dr. Paya asked teachers to go to the health department every day instead of three days a week and receive more money for their extra work. Another suggestion was to employ another teacher so that each could treat patients three days a week.” (Document No. 297-15582, 1936, December 7) Also, the head of the Department of Education and Endowments in Qom and Mahallat sent a letter to the provincial education department pointing out the problem and lack of access to trained teachers. He declared that in the past, the health department used to come to schools once for inspection, and then trained teachers would treat sick students. Teachers used to work three days a week overtime, taking care of the patients. Medicine was available in the primary school office, and the teacher could help the child who needed to take medicine during school time. Nevertheless, after a while, teachers were required to appear in the hospital according to the order of the chief of health. However, this hospital was outside the city, and it was difficult for sick students to go there because of the distance and cold weather. (Document No. 297-23575, 1937) In fact, the students needed trained people, but they had no access to them. In the following years, areas like Khuzestan and Lorestan still suffered from the shortage of trained teachers. (For Khuzestan, see Document No. 297-24464, 1938, May 14; for Lorestan, see: Document No. 297-26591, 1938, November 9, and Document No. 297-7983, 1938) In Lorestan, educated people faced more problems. Eight people were responsible for fighting against Trachoma: one woman and seven men. Three people were sent to the army; one was studying, one was transferred to Tehran, and one failed to present his certificate to start work. (Document No. 297-7983, 1938)

When Abdullah Mostofi traveled to the southern regions of Iran in the spring of 1941, he found Trachoma, a common disease in the Persian Gulf. He noticed that all the people of that region, regardless of their social class, suffered from Trachoma. Moreover, the lack of health department branches and specialists increased its spread. Hamdullah Mostofi stated, “If you just cross Sirjan, you vividly see all people are suffering from Trachoma, and the rate of blindness is high in this region.” In the city of Minab, among all boys and girls students’ schools, there is only one person who escaped Trachoma: the son of the governor, who has recently entered Minab. In the city of Bandar Abbas, many people walk with sticks, whether they are rich or poor. Therefore, the fight against the disease should be a priority. Malaria is common in Bandar Abbas and Minab. Dracunculiasis disease, caused by drinking contaminated water, is one of the most dangerous diseases in this area. It is very important to pay attention to hygiene here. In particular, experts should go to all the ports and examine all the residents so that Trachoma can be controlled there. Currently, there is one doctor in quarantine in Bandar Abbas. Examining ships takes up



all his time, and he cannot attend to other people. It is necessary to send another doctor here.” (See: Bayat, 2011, p. 33)

2- Lack of anti-Trachoma drugs

In addition to the lack of trained forces, the lack of trachoma medicine was another problem, considering the general situation in Iran. Many correspondences show how the education departments faced problems supplying these drugs in this context. Ordering medicine from Europe was one challenge, and distributing the imported medicine evenly throughout the country was another challenge. In this case, the General Department of Health and its branches could not deliver medicine to teachers due to bureaucratic problems. Moreover, when the medicine was used up, it was challenging to re-order it from Europe. Moreover, the anti-trachoma drug needed to be purchased more to meet the real need of the country. In many cities, the supply of trachoma medicine was less than required. For instance, in Yazd, the health department failed to provide the patients with the necessary drugs and facilities. As a result, the Education Department of this city asked the Ministry of Education to write a report on this situation to the General Health Department with the hope that they would solve the problem. (Document No. 297-26617, 1936) According to some reports, Arak also suffered from a shortage of trachoma medicine and trained teachers. The officials in Arak were worried about running out of medicine and had to prepare a large part of the equipment. (Document No. 297-15582, 1936, May 3) However, writing reports was futile because this shortage was a nationwide problem. (Document No. 297-15582, 1936, June 15) In some cities, such as Borujerd, the priority was to treat patients who, according to the officials, were from low-income families. Therefore, other demands inevitably remain unanswered. The mayor of Borujerd believed that the medicine budget of the municipality was exclusively for poor patients. If the medicine was to be sent by the General Department of Health, the necessary order had to be issued in this regard so that the required medicine would be delivered to the mentioned department. However, the needed medicine had to be provided from the budget allocated to the hospital's medicine department and the municipality. In that case, it should be negotiated with the Ministry of Interior. However, until the order was issued, he allowed the required medicine to be provided to the Borujerd Culture Department. (Document No. 297-26591, 1938, October 20) In this situation, the Borujerd Culture Department had to ask the General Hospital through the Ministry of Education to order the Borujerd City Hospital to provide the necessary medicine regularly. (Document No. 297-26591, 1938, October 23)

There were some important infrastructural problems in the field of Trachoma drug supply. First, the drug was imported, and no company or institution in the country could produce it. Secondly, the monopoly of drug import for one organization slowed down the process of dealing with the disease throughout Iran. In such a situation, in response to many requests from cities such as Arak, Lorestan, and other cities, the government had to announce that “Trachoma drug has already been ordered from Europe by Sepah Pharmacy, but it has not arrived yet” (Document No. 297-15582, 1936, June 8) or to say that “trachoma medicine is not available at the moment. In the first year, the order to prepare the mentioned drug was given to the Sepah pharmaceutical company, with daily follow-up by this department; so far, this drug has not reached Iran.” (Document No. 297-26591,



1938, November 8)

In addition, another problem was the financing of Trachoma medicine. The available reports in this field showed that the lack of funds and the inability of the government to meet the medical needs of all cities in Iran caused a deficiency in drug supplies in some areas, such as Zahedan and southern cities. For example, Makran Education Department reported that it needed some medicine to treat the students of Zabul, 90% of whom were suffering from Trachoma. However, the head of the health department pointed out that they could only consider fulfilling that request if they had financial resources. (Document No. 297-33971, 1937) In that period, many similar requests reached the center. For instance, regarding the supply of Trachoma medicine, the government replied to the South Ports Education Department that the General Department of Health could not provide this drug due to a lack of financial resources. (Document No. 297-31787, 1937) The head of the Ministry of Education replied to the Ministry of Education, "As it was announced earlier, the financial resources for the preparation of anti-trachoma drugs have been exhausted, and unfortunately, it is not possible to prepare a drug for Trachoma. We expect to be able to send trachoma medicine at the beginning of the following year after the approval of the budget. A small amount of this medicine can be sent wherever they need it, but it is impossible to supply it widely." (Figure 2) (Document No. 297-31787, 1938, January 25)

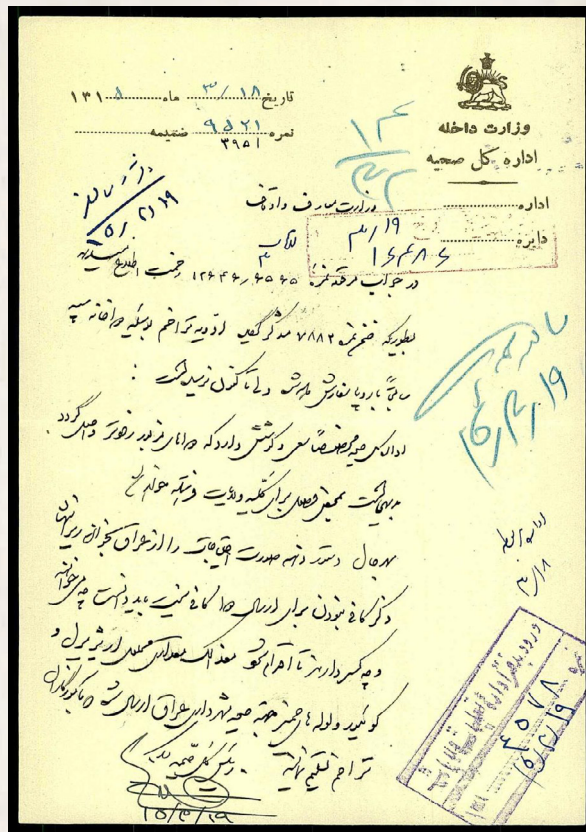


Figure 2. The subject of the document: lack of skilled teachers in the field of trachoma in the cities of Borujerd and Chabulq. In this document, it is stated that soon teachers will be sent to participate in new training courses. Source: Documents Organization and National Library of the Islamic Republic of Iran. (Document No. 297-15582, 1936, June 8)



In a report to the Ministry of Education, the government once again mentioned the limitation of its financial budget. This report stated that: "in this year, all available amount of medicine has been prepared and sent from the budget to combat Trachoma. For the last two months, no money has been left to buy and send the medicine. In the next year's budget, a significant amount is predicted, and in case it is approved, this department will not face financial problems in dealing with Trachoma. Despite this, a small amount has been prepared from other sources of budgets. The medicine is ordered to Europe, arriving in May of the following year." (Document No. 297-31787, 1938, February 13). The lack of required funds in this sector was not limited to this and led to the termination of cooperation with the trained people in the culture departments. In 1939, the General Health Department refused to renew the contract of trachoma treatment teachers in Rasht due to the lack of funds. (Document No. 297-24348, 1939)

3- Not paying the salaries of trained teachers

The government's problems in dealing with Trachoma in primary schools were due to the lack of skilled workforce and medicine needed and the inability to pay staff salaries. The great need of the government to provide funds for various places and the lack of revenues at the beginning of the modernization process in Iran caused sectors, such as health and school hygiene, to face a lack of funds. Unpaid wages of the employees in the field of Trachoma in schools were of the economic weaknesses the government faced from 1300/1922 to 1320/1942. There are documents showing the government's lack of financial resources regarding the government's inability to pay the employees' salaries. Education departments in the cities suffered more than any other administrative organization from paying the salaries of the trained employees in the field of Trachoma. The heads of these departments also organized the first protests. In Khuzestan, according to the order of the head of the health department, medical teachers who were paid fifty Rials per month had to do public services. According to him, contrary to their contract, the teachers had to work only in the primary schools where they taught. At the same time, they committed to working in the hospital or health office under the supervision of the head of the hospital or a doctor. They were applying medicine to the eyes of those suffering from Trachoma; if they failed, their salaries would be cut. (Document No. 297-24464, 1936) On the other hand, the head of the Khuzestan Education and Endowments Department defended the trained teachers and considered these orders impractical because medical teachers were required to participate in sports and music classes after teaching hours in elementary schools. Hence, they had no time left to attend the hospital and perform public services. On the other hand, according to the order that was given, the teachers had to treat the sick students for one hour three days a week, and they also performed this during their extra hours. In Kerman, the health department did not pay the salaries of trained teachers for several months. They stated that the medical teachers were not under the supervision of the health department at that time. (Document No. 297-23690, 1936, June 1) According to this department: "their salaries will be paid only when they introduce themselves to the ophthalmologist of the health department and receive training and work under his supervision." This issue caused the reaction of the Ministry of Education, who held that the Kerman Health Department should stop posing an obstacle in this regard and treat these teachers justly. (Document No. 297-23690, 1936, June 23)

These factors led to clashes between the health department and the education ministry.



In one example, the head of the Kerman education department mentioned some of the consequences of this issue in his correspondence with the head of the city health department. According to the head of education, the procedure discouraged and decreased teachers' motivation. Moreover, their approach to teachers was not ethical. In response to this position, the head of the health department wrote a report to the Kerman health department and asked that department behave better with the teachers of Kerman. (Document No. 297-23690, 1936, July 12) In another letter with the same topic, the director general of health wrote to the Kerman Health Department it was stated that the payment of teachers' salaries should be paid as quickly as possible. Moreover, the mentioned teachers were not obliged to work more than an hour and a half three days a week (Document No. 297-23690, 1936, May 26). Later, other cities showed similar reactions. The Finance Department of Ahvaz did not pay the salaries of medical teachers who were under the supervision of the Education Department and gave the excuse that the financial authorities of Ahvaz did not permit them to pay the salary. (Document No. 297-24464, 1938, March 9) However, Ali Asghar Hekmat, the Minister of Education, asked the education departments in 1937 to give the names of teachers who participated in the classes a year ago and worked in primary schools and hospitals during the summer holidays. He wanted to pay their salaries. (Figure 3) (Document No. 297-8426, 1936)

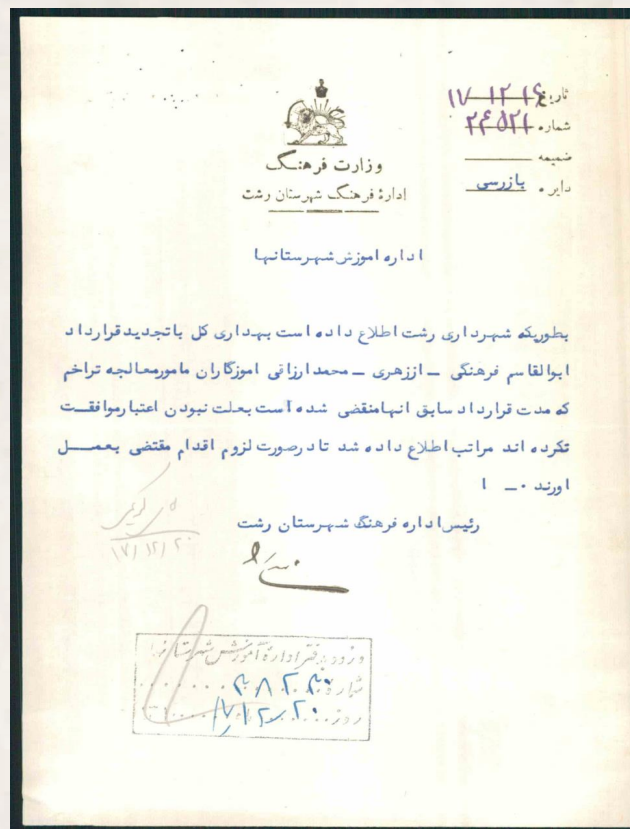


Figure 3. The subject of the document: The letter of the Director General of Health to the Ministry of Education and Endowments. Trachem medicine is not available, although Sepe Pharmacy was ordered to buy it from Europe. (Source: Documents Organization and National Library of the Islamic Republic of Iran. (Document No. 297-24348, 1939).



Conclusion

Reforming schools was considered one of the key programs of the Iranian government in 1304-1320 (1926-1942). One of the obstacles during this process was the health status of the students. In the meantime, trachoma disease was one of the infectious diseases that affected a significant number of people, especially students. Dealing with this disease in primary schools became one of the most severe challenges for the government. Economic, cultural, and social problems slowed down the process of dealing with Trachoma. Also, Iran's underdeveloped condition and the backwardness of its health and economic structures did not allow the government to implement its plans. The government took some quick steps in this regard. These measures included establishing coordination between the Ministry of Education and the Ministry of Public Health, training some teachers in the field of Trachoma, printing and publishing numerous pamphlets and materials, allocating medicine, and distributing it nationwide. Despite these efforts, problems, such as the lack of trained and skilled people, in the field of trachoma disease, the nationwide shortage of trachoma medicine, as well as the inability to pay employees' salaries on time put pressure on the government and especially the Ministry of Culture. Therefore, the government could not completely overcome the trachoma disease during this period, which remained one of the country's health problems

Conflict of Interest

None.

References

- Abadian, H., Javanmardi, F., 2017. The evolution of medical science and health in Iran from the constitution to the end of the first Pahlavi. *Medical History*, 36(10), pp. 26-41. [in Persian]
- Bastan, N., 1944. *Tarakhom and How to Prevent and Fight it*. s.l.: Majles Printing House. [in Persian]
- Bayat, K., 2011. From Bandar Abbas to the ports of Khuzestan; Spring 1941; A report by Abdollah Mostofi. *Baharestan Documents*. 1(1), pp. 21-39. [in Persian]
- Circulars, 1938. *Ta'lim va Tarbiat Journal*, 8(7); p. 85-90. [in Persian]
- Discussions of Supreme Council of Education and Training, 1924. [Manuscript] Meeting No. 3. May 27. Tehran.
- Discussions of Supreme Council of Education and Training, 1924. [Manuscript] Meeting No. 10. September 21. Tehran.
- Discussions of Supreme Council of Education and Training, 1926. [Manuscript] Meeting No. 48. June 23. Tehran.
- Discussions of Supreme Council of Education and Training, 1929. [Manuscript] Meeting No. 145. August 20. Tehran.
- Discussions of Supreme Council of Education and Training, 1934. [Manuscript] Meeting No. 289. October 30. Tehran.
- Discussions of Supreme Council of Education and Training, 1940. [Manuscript] Meeting No. 408. April 23. Tehran.
- Document No. 264-1619, 1937. [Manuscript] July 22. Held at: National Library and Archive of Iran.



Document No. 297-15582, 1936. [Manuscript] May 3; June 8; June 15; December 7. Held at: National Library and Archive of Iran.

Document No. 297-19859, 1935. [Manuscript] August 28. Held at: National Library and Archive of Iran.

Document No. 297-23575, 1937. [Manuscript] January 18. Held at: National Library and Archive of Iran.

Document No. 297-23596, 1935. [Manuscript] February 13; June 30; July 6. Held at: National Library and Archive of Iran.

Document No. 297-23690, 1936. [Manuscript] May 26; June 1; June 2; June 23; July 12; . Held at: National Library and Archive of Iran.

Document No. 297-24348, 1939. [Manuscript] March 5. Held at: National Library and Archive of Iran.

Document No. 297-24464, 1936. [Manuscript] August 17. Held at: National Library and Archive of Iran.

Document No. 297-24464, 1938. [Manuscript] March 9; May 14. Held at: National Library and Archive of Iran.

Document No. 297-25495, 1935. [Manuscript] December 25. Held at: National Library and Archive of Iran.

Document No. 297-25495, 1936. [Manuscript] January 6. Held at: National Library and Archive of Iran.

Document No. 297-25540, 1936. [Manuscript] July 8. Held at: National Library and Archive of Iran.

Document No. 297-26591, 1936. [Manuscript] June 8. Held at: National Library and Archive of Iran.

Document No. 297-26591, 1938. [Manuscript] October 20; October 23; November 8; November 9. Held at: National Library and Archive of Iran.

Document No. 297-26617, 1936. [Manuscript] April 26. Held at: National Library and Archive of Iran.

Document No. 297-28024, 1927. [Manuscript]. Held at: National Library and Archive of Iran.

Document No. 297-31787, 1937. [Manuscript] December 9. Held at: National Library and Archive of Iran.

Document No. 297-31787, 1938. [Manuscript] January 25; February 13. Held at: National Library and Archive of Iran.

Document No. 297-33971, 1937. [Manuscript] November 17. Held at: National Library and Archive of Iran.

Document No. 297-34895, 1922. [Manuscript] February 7. Held at: National Library and Archive of Iran.

Document No. 297-37024, 1936. [Manuscript] March 17. Held at: National Library and Archive of Iran.

Document No. 297-38054, 1928. [Manuscript] January 24. Held at: National Library and Archive of Iran.

Document No. 297-4676, 1935. [Manuscript] June 25. Held at: National Library and Archive of Iran.

Document No. 297-7983, 1938. [Manuscript]. November 2. Held at: National Library and Ar-



chive of Iran.

Document No. 297-8426, 1936. [Manuscript]. September 8. Held at: National Library and Archive of Iran.

Dolatabadi, Y., 1983. *Hayat Yahya*. Vol. 1. Tehran: Ferdowsi. [in Persian]

EhteshamolSaltaneh, M., 1987. *Memories*. Efforted by M. M. Mousavi. Tehran: Zavar publishing. [in Persian]

Etehadieh, M., and Malekzadeh, E., 2009. Health and charitable health measures during the period of Reza Shah. *History of Islam and Iran*, 19(3), pp. 1-25. [in Persian]

Etela'at Newspaper, 1931. No. 5(1324), May 19. Tehran. [in Persian]

Etela'at Newspaper, 1936. No. 10(2711), February 12. Tehran. [in Persian]

Farhi, F., 1937. *Trachoma and Its Treatment by Electrocoagulation*, Tehran: Sepehr Printing House. [in Persian]

Hakim Elahi, N., 1967. *The Pahlavi Era and Iran's Developments; for the Central Council of the Iranian Imperial Festival*. Tehran: Sahami Printing Company. [in Persian]

Kolune, 1934. *Eyelid boils congestion (Tarakom)*. s.l.: Bagherzadeh printing house. [in Persian]

Kooshesh Newspaper, 1923. 1st year, No. 104, 20 November. Tehran. [in Persian]

Kooshesh Newspaper, 1934. 12th year, No. 204, 24 September. Tehran. [in Persian]

Kooshesh Newspaper, 1941. 19th year, No. 35, 16 February. Tehran. [in Persian]

Morsalvand, H., 1990. *Biography of Iran's Men and Celebrities*. Vol 2. s.l.: Elham. [in Persian]

Mortazavi, S., M., 2017. *Eighty-year memories of Dr. Seyed Mustafa Mortazavi*. Efforted by F. Khalili. Najaf Abad: Mehr Zahra Publishing House. [in Persian]

Salname ye Pars, 1934. 9th year. s.l.: Majlis Press. [in Persian]

Schools health opening ceremony, 1936. *Ta'lim va Tarbiat Journal*, 5(11 & 12). pp. 623-632. [in Persian]

Sedigh, I., 2017. *Modern Iran and its educational system*. Translated by A. Nejat Gholami. Tehran: Institute of Social and Cultural Studies. [in Persian]

Torabye Farsani, S., and Ebrahimi, M., 2013. Baladieh and Public Health in the First Pahlavi Period. *History of Islam and Iran*, 24(24), pp. 79-96. [in Persian]

Valadkhani, N., 2013. Eye trachoma causes blindness, Tebyan online magazine. Available at: article.tebyan.net [Accessed 10 April 2013] [in Persian]

