




Curriculum Creation: Paleontology of Curriculum Creation in Persian Medical Education

Masoumeh Sadat Abtahi¹, Mahdi Aghabagheri^{2*} 

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One of Foucault's innovations is the application of paleontology to science and knowing literature (1). The study of paleontology focuses on the beginnings of various phenomena, including knowledge and science. The primary goal of this review is to examine how the curriculum originated in Persian medical education.

The aforementioned goal, for example, can be examined from several angles as mythological and historical. Some works, such as *Shahnameh* (Book of Persia Kings), should be studied from a mythological standpoint because one of its well-known themes is medicine (2, 3). The theme of *Shahnameh* is in line with a mythological or oral history of Iran, although some historical facts can prove the claim. In contrast to oral history, the other side of the coin is the evidence-based history of Iran; it means a reader can accept a fact because there is a myriad of evidence, like the dynasties of Ancient Persia. In this regard, the survey can be started with the followings:

- Medes Empire (700 BC-549 BC)
- Achaemenian Empire (559 BC-330 BC)
- Seleucid or Solukian (312 BC-248 BC)

- Parthian or Ashkanian (248 BC-224 AD)
- Sassanid or Sasanian (224 AD-651 AD)
- Islamic era (4, 5)

One of the proven evidence regarding the origin of the medical educational curriculum dates back to the Sassanid Dynasty (5, 6). In this regard, Borzuya is a physician who majored at Gondishapur University (7), one of the best universities in the world. Consequently, one of the origins of Persian medical education is dedicated to a factual time.

Some points are remarkable, especially when compared to the curriculum of today's undergraduate medical education, based on the resources that explore the conditions and principles of education in the Sassanid era. These are as follows:

▪ Longitudinal Themes

In the undergraduate medical education curriculum (8) revised in 2017, longitudinal themes are one of the innovations. These innovations have been implemented as

Corresponding author: Dr Mahdi Aghabagheri, Mahdi.aghabagheri@gmail.com,
Mahdi.Aghabagheri@SSU.ac.ir

¹ Department of Curriculum Planning, Islamic Education School, Science and Research Branch, Islamic Azad University, Tehran, Iran

² Department of Philosophy of Science, Medicine School, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

↑ What is “already known” in this topic:

At least 2 parallel civilizations existed in Persia—the West and the East—existed there. The recorded records of the Persian dynasties comprise the history of the West, while *Shahnameh* and other similar works provide insight into the history of the East. The appreciation of knowledge, or *Xerad*, by both East and West cultures is one of their many remarkable commonalities/.

→ What this article adds:

A formal educational system is one of the components of a wisdom-based civilization and culture, and curriculum is one of its main components. The topic of health has always been important to mankind when they are accepted into society, and medical education is one of the most important issues in this regard. The history of medicine in Persia dates back to the Sassanid era, and the famous physicians of the post-Sassanid era are the products of that educational system, which flourished in Islam schools.

According to the comparative studies of the curriculum of well-known universities of medical sciences. However, the medical graduates' competencies document has focused on these longitudinal issues (9). There are seven key skills that need to be established, developed, implemented, and assessed as part of each Iranian school's pedagogical design process, which are as follows: Communication skills

1. Patient care (diagnosis, treatment, rehabilitation)
2. Health promotion and prevention in the health system and the physician's role
3. Individual growth and life-long learning
4. Professionalism, ethics, and medical laws
5. Decision-making, reasoning, and problem-solving skills

The longitudinal theme and mentioned competencies can be observed in the curriculum that Borzuya encountered.

The following competencies were listed in the Sassanid curriculum as musts and shoulds:

- Acquiring medical knowledge to benefit society; social responsibility
- Studying medicine through an interdisciplinary approach; graduates need to be familiar with logic, art, philosophy, literature, and so on.
- One of the tenets is learning a foreign language; Borzuya was conversant in Sanskrit. He traveled to India in search of the immortality tree, and upon realizing that the tree was actually a Sanskrit book, he read it, committed to memorize it, and translated it into Persian (10, 11).
- Studying medicine to become a historical role model; a physician is able to bring patients back to life.

Integration

Different types of integration can be observed in the Sassanid curriculum of medical education because there were academic staff from different parts of the world. Horizontal, vertical, and nested integration can be observed because they were supposed to study Anatomy, Physiology, Immunology, and like in horizontal blocks, as well as conducting bedside teaching in a teaching hospital allocated to Gondishapur University, which is proof of vertical integration. Because they believe medicine is an interdisciplinary approach, the academic staff were selected according to their interdisciplinary personality. A physician must be familiar with the art in general and the branches of humanities in particular.

Accreditation System

One of the ways that a curriculum output can be evaluated is allocated to the accreditation system. In the Sassanid era, the accreditation system was central. It was the responsibility of the government to assess and accredit the educational system. The following areas of the World Federation for Medical Education (12) include Gondishapur University as one of the authorized universities in those days (12):

- Mission and values
- Curriculum

- Assessment
 - Students
 - Academic staff
 - Educational resources
 - Quality assurance
 - Governance and administration
- It is acceptable to rank Gondishapur University among the finest. An output such as Borzuya and the second, quality control and maintenance through the next centuries in Persia, are 2 significant factors in this respect. Razi and Avicenna are just 2 prominent examples. In medical literature, Razi (865-925) and Avicenna (980-1037) are well-known figures. The Avicenna Directory of Medical Schools (13) is one of the reasons. When Avicenna practiced at the Isfahan Medical School in the fourth century of Iran, which is around the tenth century in Europe, Europe was still suffering from the effects of the Dark Ages (14, 15).

Conclusion

Historical evidence, some of which is reviewed in this study, indicates that from the Sassanid era in Iran, the medical curriculum has been established, developed, implemented, and assessed. Two examples from more recent times are Razi and Avicenna, who benefited from a civilized educational system.

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Conflict of Interests

The authors declare that they have no competing interests.

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