

## An Overview of Medicine Science in Shahnameh (Letter of Kings)

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### ABSTRACT

Ferdosi's Shahnameh is among most valuable Iran and world literary works that has been an important and interesting work for literati and people. This grand literary work apart from its epic elements that are the domineering parts of it can be analyzed from language and literature, sociology, mythology, story-telling and other aspects one of these fields that can be the base for research and has important results is medicine science. Medicine science history returns to old ages, when humans felt illness in their bodies and tried to cure it. For this reason, Firdousi's Sage gathered medicine science with mythical stories and based on his age's historical documents in his work. He introduces Jamshid at the beginning of his work as the founder of medicine who advised people to observe sanitary principles. Fereidoon has been introduced as a skillful physician who looked for herbal drugs, did surgical operations with scalpel and cured body wounds with burning them. He (Fereidoon) also learned about a herb called "Hoom" that was used for cold, removing pain and inflammation. In this paper, some of illnesses and their remedies are described and the poet's perspective on their importance is reviewed. We continue to mention some medical issues like diagnosis and remedy of diseases, some of the names of drugs, heredity and application of some of medical terms and also spiritual and physical health in Shahnameh.

**KEYWORDS:** Ferdosi, Shahnameh, medicine, drug, hereditary issues.

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### 1. INTRODUCTION

Ferdosi's poem's beauty and his intellectual depth are so great that he has been regarded among the greatest men in global knowledge and literature and has been called the greatest epic poet of the world. His work Shahnameh, as an important literary, historical, scientific and philosophical heritage of Iranians, has talked about issues that require more scientific researches to demonstrate the details of each knowledge and field. Shahnameh, not only depicts the epics of ancient Iran but also describes human being's epic and because it has left human knowledge capital in the form of verse, it is regarded as a unique work. One of this knowledge is medicine "the main characteristic of medicine knowledge is its relationship with theological and human philosophy and knowledge and therefore Hakim has been applied both to a philosopher and a physician". (Jafarian, 2002: 175) In order to become familiar with medicine background in Iran we must refer to old texts and we consider Shahnameh in this research. Medicine history goes back to ancient ages. At those days humans felt pain & disease in their bodies & looked after a remedy. Ferdosi has gathered medicine knowledge in relation to mythical stories & based upon his age's documents & evidence.

#### Medical instruments & phrases in Shahnameh

##### 1. Physician

Medicine is one of the most precedence jobs over history & due to its relationship with human life it is among phenomena that humans are directly in contact with & it has some roots in religion, mythology, traditions & different communities customs (Mohseni, 2007: 211)

"Avesta regards Fereidoon as the first physician who practiced veterinary medicine in addition to medicine". Ferdosi introduces Jamshid as the founder of medicine. Jamshid, as Shahnameh says, reigned 700 years and acted both as a prince & monk with divine magnificence (Farrah Izadi) & did many great works during his kingdom & as Ferdosi says: He did many nice things. Nice things that people needed medicine & remedy for patients. To spread health & fight diseases he disclosed scientific secrets. He did many nice things to the world people were safe & sound. And ailment & death did not affect people.

##### 1-1 medicine conditions

A physician who is ails in his own body. Will not cure any patient

##### 1-2 consultancy & medicine

1-2-1 when snakes grow on Zahhak's shoulders

Knowledgeable physicians were gathered. They each presented a remedy. They tried everything but they did not find the remedy.

1-2-2 when Kavous goes blind

Physicians were hopeful to remedy him. with white beast's heart's blood & brain

*1-2-3 when Gostahm gets wounded*

Physicians from Rome, India & china . From Greece & iran .asked them to sit at Gostahm's bed and tried every magic & medical practice

*1-2-4 when Zarrin gets ill*

Old men, the elderly and the experienced men. All of the knowledgeable physicians. practiced all of the possible alternatives . all remedies were in vain

*1-2-5 when Nahid (Dara's wife) goes ill*

Knowledgeable physicians were invited. They were sat beside Nahid. An illuminated and knowledgeable man found the remedy

**1-2 Eblis (=Satan ) the first physician in Shahnameh**

Then Eblis like a knowledgeable physician went to Zahhak as a sage .

**Abgoon dagger or the very scalpel (surgery razor)**

He brought an Abgoon (=glistening) dagger. he, who was an experienced knowledgeable man

**1-3 nurse**

Nursery was done from ancient ages in houses & temples and after that some old women practiced nursery & nursery was considered as an unacceptable occupation until 100 years ago when Florence Nightingale despite the fact that she was from noble class , practiced nursery & after that women & girls started to learn nursery & also some schools were established to teach nursery

A nurse should be good-tempered, sympathetic, calm, kind to be considered a good nurse (saeedian,2001:930)

In Shahnameh , the word "nurse" has been used to describe "servant" but today nurse & nursery are among important medical jobs Soudabeh's speech to Siavash & applying the word nurse instead of servant proves this claim :

A young girl. I will give you as a nurse

Ferdosi uses this word equivalent to "wounded" which is far different from its current meaning

No physician & no food were present for the wounded. it was sorrow & sad tears all

all night long, the wounded were gathered. they were treated in an unfriendly way

**1-5 hospital**

The word Bimrestan (Bimar+estan=house of the sick) is a Persian word that means " a place where sick people are kept This word firstly meant " house of patients" & later in the next decades , " house of patients " were demolished & patients left there & only mad people stayed there & gradually Bimarestan turned into Darolmajanin (=house of the mad = lunatic asylum) (Sarmadi, 2009:393) And the reflection of this in Ferdosi's Shahnameh:

Goudarz said to him a hospital. will be replaced by a sharestan (=city)

Many famous people by my hand

Many sharestans turned into Bimarestan & many orchards turned into thorn yard

*1-5-1 reference to Jondishapour hospital*

In Ahvaz turned the third Sharestan. into a palace & Bimarestan(= hospital)

As it is obvious from the above examples , Ferdosi uses the word " Bimarestan" in its current meaning

**1-6 illness & remedy**

*1-6-1 illness: growing snake on Zahhak 's both shoulders*

Remedy: human brain

Physician : Eblis (=stan) in a physician's clothing

Two black snakes grew on his shoulders . he became sad & looked after remedy . finally he decided to cut the snakes off his shoulders. it is of course odd to hear. those two snakes grew again on the king's shoulders. knowledgeable physician were gathered . they all created different remedies. they tried all possible practices .but they couldn't cure the disease .then Eblis went to Zahhak. like a wise man. he told Zahhak this must have happened. do not be afraid .you must give them food.and don't go for any other alternative . do not give them any remedy but human brain.until they die from this kind of food

*1-6-2 Zali (white hair disease)*

Zali is a hereditary disease that melatin black pigments are not made in skin & all hairs are white & the skin itself is pinkish white Because Rostam's father suffered from this disease , he was called Zal Ferdosi describes Zali as follows:

His mother (=Zal's mother) gave birth to a beautiful child . a very good – looking body

his face was as handsome as sun.but his body's hair was white

Sam(=Zal's father) got off his throne . and went to his baby's tent

He found his son's eyelash white & his eyes black . and his lips were like coral & his face like blood

In this story , Simorgh acts as a curer and mostly as a problem –solver & keeps Zal the body which has been rejected by his father in mountains & many years later when Zal gets disappointed from his wife's (=Roudabeh) natural child birth, simorgh gives the good message of having a healthy powerful body and makes him happy

#### *1-6-3 Czarian*

##### *1-6-3-1 Czarian in ancient Iran*

In stories & resources & poems it has been mentioned that Rostam, Iranian famous mythical character & Joulious Czar, czar of Rome's mothers were given birth to babies with Czarian operation therefore , bringing out a baby his.her mother's womb is called czarina & Iranians say Rostami (sarmadi,2009:153)

##### *1-6-3-2 Rostam's birth in Shahnameh*

Ferdosi explains all of the steps of Rostam's birth like skillful physician & uses medical expressions like Abgoon dagger instead of scalpel , "professional wise man " instead of surgeon, "turned the baby in head-out position" , turning the baby to the right position due to abnormal position in womb, "sewing" instead of stitching, "wine" instead of analgesic, " getting drunk instead of making the woman unconscious, "breaking apart " instead of surgical operation , & finally refers to bandaging with an ointment made of a combination of herbs , milk & musk to cure the wounds

Bring an Abgoon dagger .and also a professional wise man. he first make the woman drunk . and made her completely unconscious .he broke apart her belly.in a way that she would not feel any pain . then he brought out the baby .and her stomach was full of blood. then sew the stomach .and don't be afraid . the herb that I say & milk & musk.combine them & dry them in sunlight . sieve the mixture & put on her wounds. you will see it will be healed quickly . the most famous medical referring in Shahnameh is the very Rostam's childbirth where due to large body of Rostam, Simorgh orders to break Roudabeh's body side and bring out Rostam. Ferdosi explains the details of Rostam childbirth details in more than 50 poem lines but here we mentioned a few of them for brevity

##### *1-6-4 kavous & his corpse go blind & Rostam recommends a medicine*

Night passed and day came out.Kavous's eyes went blind. a great many of his soldiers went blind too.and great men of his corpse were angry with Kavous. Physicians told the remedy.they prescribed white Beast's heart and blood. A wise physician said that. white Beast's blood. Must be dripped into your eyes.so that blindness will go awayfrom your eyes.

##### *1-6-5 losing consciousness as an illness*

Housh(=intelligence; consciousness; etc) has been used in Shahnameh in many meanings:

##### *1-6-5-1 fainting*

-he listened to the speech carefully like an old man. he fell from his throne and went unconscious

Tahamtan(=Rostam) when heard the story. Zabol city became full of scream

##### *1-6-5-2 memory*

-Goudarz has lost his memory.and he has not put aside his religion

You intelligent and merciful God. put on me with Siavash's armor

##### *1-6-5-3 death*

Who owns his life and death.which will make us cry

Jamasb told him, hey prince.don't consider this day as valueless

His life and death is in Zabol.is in Rostam's hands

## **1-7 medicine and treatment**

### *1-7-1 treatment types in Shahnameh*

#### *1-7-1-1 Bahram wraps a soldier's wound with bandage*

Bahram rushed to him.with a kind heart and a friendly gesture.He cried for him and was very sad. broke apart his own shirt and wrapped the wound. Told his soldier that his wound.was bleeding because it is unwrapped

Now that I have wrapped your wound. you will get better and move towards the corpse.

#### *1-7-1-2 war wounded soldiers treatment*

-all night long, wounded soldiers were removed. they were in bad conditions. Many wounded soldiers have been spread away.many of them are your relatives and friends. Let the physicians treat them.put aside some time for this

#### *1-7-1-3 healing bead to treat Gostahm's pain*

Iranian kings usually had some beads on their arms that could heal any wound KeyKhosro treats Gostahm's fatal wound with such a kind of bead of course treatment with beads was mostly due to positive inspiration and spiritual aspects of the treatment:

From Hooshang and Tahmoore and Jamshid, there was a bead which was the wounded hope. It was bequeathed to Shah. on his arm was all years and months. When he felt sympathy for Gostahm, opened the bead from his right arm. Wrapped the bead on Gostahm's arm. and rubbed it on the wounds

#### 1-7-1-4 Dara's wife bad breath and its treatment

A night, the beauty slept with the king, full of beautiful cosmetics and jewelry. She had a bad breath, and the prince went angry. He felt sick, because of the offensive breath. He felt sad, and thought about the disgusting smell. Knowledgeable physicians were summoned, they were sat besides Nahid. An experienced physician, found the remedy. A herb which was very bitter, and in Roma it was called Skandar. Rubbed the herb in her mouth, she shed some tears. Her bad breath disappeared, and her face was red with pressure and bitterness.

### 1-8 drugs

#### 1-8-1 wine

Ferdosi uses wine as an analgesic in some parts of Shahnameh, especially when Rostam's mother is giving birth to him:

First, he made the woman unconscious, and felt calm and relaxed. Because wine contains alcohol, it brings drunkenness, limpness and dizziness but it can't remove pain and such a kind of break-apart must have been done using ancient Iranian unconsciousness drug ie mixture of wine and hashish

#### 1-8-2 herbs

In old medicine, drugs were obtained from herbs Ferdosi refers to the story where Borzouye the Physician travels to India to bring herbs in Anoushirvan kingdom as follows:

When Borzouye stepped towards mountain, all of the physicians followed him. Every knowledgeable man, who was familiar and capable in medicine. Dry and green herbs were collected, all faded and fresh herbs. In Rostam's childbirth, the physician mixes some herbs with milk and musk and dries the mixture and puts it on Roodabeh's wounds:

The herb I say with musk and milk, combine and dry the mixture in shade. Sieve and rub it on the wounds, you will see that it will be cured easily. Aryan school also refers to herbs creation in 8th-episode: "creation's spirit is a beam of light from the first starting point ie eternal spirit and all of the plants and creatures including 65 creatures and herbs with healing powers were obtained from that (Khodabakhshi, 2006: 58)

#### 1-8-3 Nooshdaroo (=healing potion)

Old Iranians believed that nooshdaroo was a drug with which fatal wounds and near-death patients are healed with (Hedayat, 1932: 111)

In Dehkhoda's dictionary, under "nooshdaroo" word it says: "antidote, opium, a sweet, heart-relaxing, stomach-friendly potion and drug that heals all wounds and pains, a potion that could heal fatal wounds and near-death patients" (Dehkhoda, 2010: 892)

When Sohrab is on the verge of death, Rostam asks for nooshdaroo from Kavous: From Nooshdaroo that you have, and heals the wounded. Towards me with a little wine, it will be pleasing if you send now. Maybe I can cure Sohrab, and we reach success. Ferdosi also refers to antidote and when an Indian physician tries to treat Alexander, he says: his kindness was more than his wisdom, he could distinguish between poison and antidote.

#### 1-8-4 health drug

A physician prescribes a drug for Alexander to remain healthy for ever: you will be healthy with your body, and your heart will be illuminated like spring. This drug will help remain your face color, and your thought will be clear. Your hair will not go grey, and white hair will no longer have meaning for you, the physician came to mountain, and brought some herbs. He was very knowledgeable, and he could distinguish poison from antidote

He picked many mountain herbs, very useful herbs, he separated antidotes from other herbs, and combined the herbs, he washed Alexander's body with herbs, and he was healthy for a long time.

### 1-9 diagnosis of diseases

"the best characteristic of a physician is recognition of drugs and diseases" (Onsorolma'ali, 2009: 141)

#### 1-9-1 diagnosing diseases out of tears

A physician who went to Alexander from india:

-the third thing I must say is a physician, who is so skillful that tells the disease out of tears

#### 1-9-2 diagnosing disease out of face

Alexander's disease that led to his death:

All of the soldiers were sad about Alexander's disease because the king's face was pale.

### 1-10 heredity and its reflexion in Shahnameh

"Gowhar (=heredity; jewelry; ...) has two meanings in Shahnameh: one is clan and race and the other is nature" Gowhar is used to mean race (=heredity) because race might provide some powers for a person that is

firstly weak and not only it is not an honour but also it is a pretext to get criticized due to not using it Some poem lines like: "Art is better than Gowhar" or "Gowhar is not worth having without art and craft" in Shahnameh proves this claim(Hamidian, 2007: 101)

*1-10-1 heredity from physical point of view*

Fereidoon's children birth:

Their height was like cypress (=tall) and their faces were like spring (=beautiful). they completely looked after the prince(=their father)

### **Sohrab's resemblance to Rostam**

After nine months. the king's daughter gave birth to a pretty baby.He was very similar to Rostam. or he was similar to Sam and Nariman(his grandpas) After one month, he was like a one-year-old boy. and his body was like Rostam's body.After three years, he played polo. and after 5 years, he carried bow and arrow

He came to his mother. and asked her...I am more powerful than my peers. I am more intelligent than them all

Who is my father. what should I say when they ask me about my father's name. Your father's name is Rostam. and your grandfathers are Sam and Nariman. That is why you are better than everyone because your father is a great man with original Gowhar .a black mole which was the sign of Siavash on his son's faces(Keykhosro and Forood):

Giv told him, hey you head of fighters. what is the sign of nobility .Siavash's sign was obvious.like a black dot on a white board .You open your arm. and your sign will be clear to everyone. Shah showed his body to everyone.Giv watched the black sign carefully. the black sign was bequeathed from Keyghobad. and showed his heredity and race. Kavous speech about Keykhosro: he praised Siavash very well.he was completely similar to his father. Rostam speech to Keykhosro: I did not see any king. similar to his father in magnificence

Hence there are many evidence like above in Shahnameh, the above cases are enough for brevity

*1-10-2 heredity from temper point of view (Heredity and temper)*

Piran speech:

One who does not bequeath bad temper from his father.he will not have bad temper. Piran speech to Keykhosro:

A person from Siavash clan. should be wise and alert and intelligent . Bahram's speech to Foroud on Tous:

But he is very wise person. he does not listen to advices. He has art and wealth and race. we cannot talk about Shah. he is a very stubborn man. no one else can get along with him. Goudarz talking with Piran on Afrasiab:

Evil is in his nature. he is famous for evil. Did you hear what happened to Iraj. what bad things happened for kingdom?

He was from Keyghobad race. nature and race are related to each other. Kavous speech on Keykhosro:

He praised Siavash very well.he was completely similar to his father Rostam speech to Keykhosro:

I did not see any king. similar to his father in magnificence hence there are many evidence like above in Shahnameh, the above cases are enough for summary

## **2. Hygiene**

Hygiene means providing, keeping and improving health level(Esfahani, 2001: 19)

### **2-1 physical hygiene and health**

*2-1-1 attention to nutrition and rest*

Eblis(=Satan) gives yolk to Zahhak:

-at first, he prescribed yolk . he was healthy with that for a while .Rostam suckling: Rostam has suckled milk from 10 nursemaids. a man's power is from milk. Paying attention to Giv's health: Tous told Giv. you are a wise well-known man. It is three days that you are riding. you did not sleep and eat well Come here and eat something. have a relax to get calm .Abkesh speech to Bahram the king: He told him help us with eating. that a man will grow with food

*2-1-2 avoiding gluttony*

Prohibition on gluttony has been mentioned in Quran, Imams speeches and even in the beliefs of some kings like Kourosh

In Ayat 31 of A'araf Soureh, we have: "eat, drink but do not waste"

Ali (pbuh) says: one who observes moderation in his eating, will improve his health and mind

Cyrus the great also believed that: most of diseases arise from gluttony, bad foods, contaminated water, bad weather and avoiding sport (Khodabakhshi, 2006: 45)

Avoiding gluttony in Shahnameh:

Alexander and Indian physician debate:

He ordered the physician to come over him. you that can tell diseases from tear. He asked the reason for illnesses. that cause tear and disease. He answered one who eats a lot.when he starts eating, he cannot eat well

One who eats a lot is not healthy. a great man will care for his health Boozarjmehr talking to Anooshirvan:

He answered if you eat less. you will be healthy in body and spirit .Avoiding gluttony: Avoid eating too much food.you should not eat more than necessary Eat so much food that does not affect you badly. if you eat well, you will be healthy do not eat as full as possible.you must eat as much as you still have appetite

#### *2-1-3 Health and sport importance:*

Ardeshir speech:

You must take care of four things:. therefore you will be healthy and satisfied. One is fear from God. that is your leader .the second is moderation with your body. and avoiding sinfulness. going to the way that god orders. liking me as much as you. Ardeshir talking to his son Shapour: Dear my son, this world. will not have you happy without attempt. Keep your body and brain. if you want your days good. Bouzarjmehr talking to Anooshirvan: Living in welfare and solace. and avoiding hardships. Happy a man who fulfils his promises. one who is free of sins .His spirit will keep his body.he will see satisfaction in his life. a bad man is one who. is not afraid of almighty god. Such a person is very stingy. and full of unreachable ambitions. Kasra asking Bouzarjmehr: How do you know that he will be useful. and come in handy for us he answered: an unhealthy man.who wants happiness all time .when he faces a pain in his life. all his ambitions become one and that is health

#### *2-1-4 sport*

Sport is defined as follows: "sport means regular and repetitive movements of body to gain agility, happiness and more health"(Esfahani, 2001: 294)

If a young man is lazy. he will be bad-tempered and black-spirited .honesty follows strength. and weakness brings dishonesty and shortage

### **3. Spiritual hygiene**

As the most important step in physical health is observing personal and public hygiene, the main step in spiritual health is keeping spiritual hygiene (Ahmadi, 1991: 226)

#### **3-1 Social, spiritual hygiene**

Hence cohesion and unity, going between people, avoiding enmity and war, mutual relationships, justice and forgiveness and apology are the main characteristics of spiritual-social hygiene, we must not look for such items in Shahnameh because this book is full of vengeance, taking revenge, war and conflict and even it contains scenes where father kills his son

#### **3-2 individual's spiritual hygiene**

##### *3-2-1 avoiding rush*

A person who is calm will not be regretful. a rushing person will be regretful. Rush and evil are Devil's characteristics. they are both the reasons for regret and agony. you must be always patient. hurry will be bad for a prince. your heart and brain must be away from rush. intellect will be ruined by rush

##### *3-2-2 Avoiding wrath*

Try to avoid wrath. try to forgive and forget. wrath will end up in regret. forgiveness is far better .If you want to be well-known. leave wrath and revenge when you become king .

##### *3-2-3 mercy and patience*

One who asks for forgiveness. you better forgive him. You must act justice. happy a merciful and patient man

##### *3-2-4 avoiding anguish*

Anguish will make a man's face yellow and pale. calmness will lead to satisfaction . Safety and honesty are both musts. they must be observed. If you decrease happiness your spirit will be damaged. intellect will become damaged

### **Conclusion**

In view of research that we did in Shahnameh on medicine science, we concluded the following:

Although Ferdosi was not considered a formal physician, but most of the sages at that time were skillful in all sciences, he has gathered many medical cases based on documents and books. We observe many medical cases in Shahnameh like growing snakes on Zahhak's shoulders, Rostam's birth and so on Undoubtedly Ferdosi has had knowledge on medicine but he cannot be ranked among his contemporary physicians like Abou-Ali-Sina and Razi but nevertheless he has made much of encyclopedia in his age and the information he has gathered in Shahnameh are very useful It is obvious that treatment and remedy of ill people is among the main necessities of a developed society, in Shahnameh in Jamshid's age when many social organizations and crafts came to existence, medicine and remedy have been mentioned Today after more than 1000 years after ferdosi, many of the marvels of medicine have been decoded and undoubtedly the remaining undiscovered phenomena will also be deciphered

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