International Journal of Advances in Engineering and Management (IJAEM)
Volume 4, Issue 9 Sep. 2022, pp: 725-727 www.ijaem.net ISSN: 2395-5252

Contribution of Islam to the Development in the Field of Medicine

Dr. Ibraheem Misbahi
Assistant Professor Department of Arabic BGSBU Rajouri

Date of Submission: 07-09-2022 Date of Acceptance: 17-09-2022

ABSTRACT
In medieval times, Islamic thinkers elaborated the theories of the ancient Greeks and made extensive medical discoveries. There was a wide-ranging interest in health and disease, and Islamic doctors and scholars wrote extensively, developing complex literature on medication, clinical practice, diseases, cures, treatments, and diagnoses.
Often, in these medical texts, they incorporated theories relating to natural science, astrology, alchemy, religion, philosophy, and mathematics.
In the "General Prologue" to the "Canterbury Tales" enary English poet Geoffrey Chaucer referred to the authorities of Abu Bakr Muhammad ibn Zakariya' al-Razi, a Persian clinician (al-Razi), and Abu 'Ali al-Husayn ibn Sina, (Avicenna) a renowned physician, among other Islamic polymaths. In fact, Western doctors first learned of Greek medicine, including the works of Hippocrates and Galen, by reading Arabic translations.

Influences on Islamic medicine
Islamic medicine built upon the legacies of Greek and Roman physicians and scholars, including Galen, Hippocrates, and the Greek scholars of Alexandria and Egypt.
Scholars translated medical literature from Greek and Roman into Arabic and then elaborated upon it, adding their findings, developing new conclusions, and contributing new perspectives.
Roman writings, compiling encyclopedias.
Rather than being a subject in its own right, medicine was part of medieval Islamic culture. Centers of learning grew out of famous mosques, and hospitals were often added at the same site. There, medical students could observe and learn from more experienced doctors.
From 661 to 750 C.E., during the Umayyad dynasty, people generally believed that God would provide treatment for every illness. By 900 C.E., many medievallslamic communities had begun to develop and practice medical systems with scientific elements.
As interest in a scientific view of health grew, doctors searched for causes of illness and possible treatments and cures.
The medieval Islamic world produced some of the greatest medical thinkers in history. They made advances in surgery, built hospitals, and welcomed women into the medical profession.
The Persian physician, chemist, alchemist, philosopher, and scholar al-Razi lived from 865 to 925 C.E. He was the first to distinguish measles from smallpox, and he discovered the chemical kerosene and several other compounds. He became the chief physician of the
As an author. al-Razi was prolific, penning more than 200 scientific books and articles. He also believed in experimental medicine. Known as the "father of pediatrics," al-Razi wrote "The Diseases of Children." likely the first text to distinguish pediatrics as a separate field of medicine.

Al-Razi
The Persian physician, chemist, alchemist, philosopher, and scholar al-Razi lived from 665 to 925 c.e.

He pioneered ophthalmology and was the first doctor to write about immunology and allergy. Records suggest that al-Razi discovered allergic asthma, and he was the first to identify a fever as a defense mechanism against disease and infection.

Also a pharmacist, al-Razi wrote extensively on the subject, introducing the use of mercurial ointments. Records attribute many devices to him, including spatulas, flasks. mortars, and phials. Records indicate that al-Razi traveled throughout Persia, teaching medicine and treating rich and poor alike.
Regarding medical ethics, al-Razi wrote: "The doctor's aim is to do good, even to our enemies, so much more to our friends, and my profession forbids us to do harm to our
Lindred, as it is instituted for the benefit and welfare of the human race, and God imposed on physicians the oath not to compose mortiferous remedies." As was common in Europe and the

International Journal of Advances in Engineering and Management (IJAEM)
Volume 4, Issue 9 Sep. 2022, pp: 725-727 www.ijaem.net ISSN: 2395-5252

Middle East at the time, al-Razi believed that demons could possess the body and cause mental illness.

Ibn Sina (Avicenna)

Ibn Sina, who many Europeans referred to as Avicenna, was also Persian. He hadmany skills and professions, and he wrote approximately 450 books and articles, 240 of which still exist today. Forty of these focus on medicine. Among ibn Sina's significant contributions to medieval medicine were "The Book of Healing," an expansive scientific encyclopedia, and "The Canon of Medicine," which became essential reading at several medical schools around the world.

The universities of Leuven, in Belgium, and Montpellier, in France, used these texts into the middle of the sixteenth century.

The Law of Medicine

The Canon of Medicine, also called "The Law of Medicine," ibn Sina wrote this five volume textbook in Arabic. Later, people translated it into several languages, including English, French, and German.

It is one of the most famous and influential books in the history of medicine The Canon of Medicine" set standards in the Middle East and Europe, and it provided the basis of a form of traditional medicine, Unani, in India. In the United Sules, the University of California, Los Angeles, and Yale University teach some principles of "The Canon of Medicine" in their history of medicine courses

In part of the text, ibn Sina explains considerations for testing new medicines 1. The drug must be pure and not contain anything that would reduce its quality

2. The investigator must test the drug on one simple disease, not a condition that could have various complications

3. They should test the medication on at least two distinct diseases, because sometimes a drug might treat one disease effectively and another one by accident.

4. A drug's quality must match the severity of the disease. For example, if the heat of a drug is less than the "coldness" of a disease, it will not work.

5. The researcher must time the process carefully, so that the action of the drug is not confused with other confounding factors, such as the natural healing process.

6. The drug's effect must be consistent, with several trials showing the sameresults. In this way, the investigator can rule out any accidental effects.

7. Investigators must test the drug on humans, not animals, as it may not work in the same way for both.

Human Anatomy and Physiology

Today, the medical community attributes the first description of pulmonary blood circulation to Ala-al-din Abu al-Hassan Ali ibn Abi-Hazm al-Qarshi al-Dimashqi, now widely known as ibn al-Nafis. The physician was born in Damascus in 1213.He said that he did not like dissecting human corpses because it contradicted the teachings of the "Quran," and because of his compassion for the human body. Medical historians believe that he most likely did his research in animals.

The Greek physician Galen, who lived from 129 to 216 C.E., proposed that the body created blood in the liver, that it circulated around the body, and that the muscles used it as fuel. He also thought that holes in the septum of the heart allowed blood to flow from one side to the other of the heart. Ibn al-Nafis believed that this was wrong.

The Cardiovascular System

He said that blood must flow from the right to the left side of the heart, but that there were no holes or pores in the septum, as Galen had thought. From his experience of dissection, he noted that there must be a system of arteries that carried the blood. He also believed that the arteries carried the blood from the right chamber of the heart to the lungs, where it would mingle with air, before moving back to the left chamber.

The Eyes

According to Ancient Greek medicine, a visual spirit in the eye provided sight. Hasan ibn al Haytham, or al-Hazen, was an Iraqi Muslim scientist who lived from 965 C.E to around 1040 CE He explained that the eye is an optical instrument and provided a detailed description of the eye's anatomy, Later, he developed theories about the formation of images Scholars in Europe referred to his "Book of Optics until the 17th century

Digestive System

Ahmad ibn Abi al-Ash ath, an Iraqi physician, described how a fall stomach dilates and contracts after experimenting on live lions.

Musculoskeletal System

The jaw Abd al-Latif al-Baghdadi, an Iraqi physician, historian. Egyptologist, and traveler, lived from 1162 to 1231 CE Galen believed the lower jaw to consist of two parts, but

International Journal of Advances in Engineering and Management (IJAEM)
Volume 4, Issue 9 Sep. 2022, pp: 725-727 www.ijaem.net ISSN: 2395-5252

al Baghdadi, after observing the remains of over 2,000 people who had starved to death in Egypt, concluded that the lower jaw, or mandible, consists of just one bone.

Medicinal Herbs

Medieval Islamic physicians used a wide range of herbs, including the following: A mixture of dill seed, chamomile flower, yellow sweet clover, mallow leaves, flaxseed, cabbage, and beetroot, boiled together and added to a bath as an analgesic for people with cancer.

Garlic in many treatments, including urinary problems. Juniper or pine needles in a bath, to relieve allergic skin problems. Oregano, for its antiseptic and anti-inflammatory properties. Cinnamon for wounds, tumors, and ulcers. Cannabis and opium: Doctors prescribed these, but only for therapeutic purposes, as they realized that they were powerful drugs. There is evidence that some people died of overdoses when using certain medications to cure forgetfulness, possibly due to medical malpractice.

Surgery

Medieval Islamic physicians performed more surgeries than their Greek and Roman predecessors, and they developed new tools and techniques.

In the 10th century, Ammar ibn Ali al-Mawsili invented a hollow syringe that he used to remove cataracts by suction.

Abu al-Qasim al-Zahrawi was an eminent surgeon who lived and worked in Andalusia, Spain. He invented a number of instruments, including forceps, pincers, lancets, and specula. He also used catgut to sew up wounds.

Types of Procedure

Apart from cataracts, medieval Islamic doctors also performed eye surgeries to treat trachoma. Cauterization was a common procedure, involving burning the skin to prevent infection and stem bleeding. A surgeon heated a metal rod and placed it on the wound to clot the blood and improve healing.

Also, surgeons practiced bloodletting to restore the balance of humors, the four elements or characteristics that formed the basis of much medical practice from Greek times until the 17th Century. They would draw blood from a vein, sometimes using a practice called "wet cupping." This involved placing a heated glass cup over an incision in the skin.

Hospitals

There were also hospitals, including teaching hospitals, where students could learn how to treat patients. Cairo (in Egypt), Harran (in Turkey) and Baghdad (in Iraq) had famous hospitals.

The name given to hospitals was "bimaristan." from a Persian word meaning "house of the sick." According to Oxford Islamic Studies Online, the term referred mainly to mental health facilities, although hospitals offered a wide range of services, and people did not always have to pay.

Female Doctors

Female doctors were not uncommon in medieval Islamic medical practice, according to an article published in The Lancet in 2009. Some women from the families of famous physicians appear to have received elite medical training, and they probably treated both males and females.

Others would have provided medical care without formal training, as a family member or a neighbour. One advantage of women being able to provide health care was that they would be more likely to understand women's health issues.

Another was that fathers and male guardians would prefer women to see a female attendant, although treatment from males was deemed appropriate in some cases.

CONCLUSION

While Europe was in the so-called Dark Ages, Islamic scholars and doctors werebuilding on the work of the Greeks and Romans and making discoveries that continue to influence medical practice. Among the many achievements of medieval Islamic medicine were an improved understanding of the body's functions, the establishment of hospitals, and the incorporation of female doctors.