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Physiological Concepts of Ibn Sina: A Systematic Review of Munafeul Aza in Classical Unani Medicine

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Abstract
The great Persian polymath of the Islamic Golden Age, Ibn Sina (Avicenna), established the groundwork for the Unani system's integrated understanding of human physiology (Munafeul Aza). Combining his empirical observations with the knowledge of Greek physicians, his encyclopaedic work Al-Qanun fi al-Tibb (The Canon of Medicine) is among the first comprehensive treatises on organ function. Ibn Sina provided a thorough physiological model with his quwa (faculties), af'al (functions), arwah (spirits), and mizaj (temperament) framework. This essay critically evaluates Ibn Sina's contributions to Unani physiology, including his theories on organ interdependence, digestion, pulse, and spirit distribution. Comparatively, it emphasises his ongoing significance and impact in conventional and contemporary health sciences (1)(2).

Keywords: Ibn Sina, Munafeul Aza, Unani Physiology, Quwa (Faculties), Temperament (Mizaj), Canon of Medicine

Introduction

The Unani medical system, which has its roots in Greco-Arabic customs, strongly emphasizes the harmony of humours and the coordinated operation of body systems. It developed throughout the centuries due to the intellectual contributions of Arab and Persian intellectuals, Hippocrates, and Galen. Among them, Ibn Sina (980–1037 CE) stood out as a titan. By accurately conceptualising body capabilities and systemic regulation, his thorough comprehension of Munafeul Aza (human physiology) synthesised and expanded prior knowledge (3).

According to Ibn Sina's schema, the body operates as a dynamic whole under the control of Tabi'at, a self-regulating force comparable to homeostasis in contemporary biology. Through quwa (faculties) such as natural, vital, and mental powers, this innate faculty maintains the harmony of humours and appropriate organ functioning. Ibn Sina's holistic physiological approach was deeply integrative, going beyond mechanical models to include mental, emotional, and environmental variables (4).

In this paper, Ibn Sina's distinctive physiological contributions will be discussed in detail, along with how his theories fit into the development of Unani medicine and their scientific relevance.

Work by Ibn Sina on Human Physiology (Munafeul Aza)

The idea of faculties (Quwa) and what they do (Afʿal). Ibn Sina distinguished three main faculties in the functioning of the body:

Quwwat-e-Tabi'iyah, or the Natural Faculty, is responsible for growth, metabolism, reproduction, and nourishment.

The vital faculty (Quwwat-e-Haywaniyah) controls circulation through the heart and arteries, heartbeat, and pulse.

The brain's psychic faculty, quwwat-e-nafsaniyah, governs voluntary movement and sensory perception (5).

The four fundamental functions of each of these faculties are evacuation (dafʿ), digesting (hazm), retention (imsak), and attraction (jazb). These successive phases demonstrate a strikingly rational comprehension of physiological functions analogous to those of the contemporary circulatory, neurological, and digestive systems (6).

Pulse Diagnosis and Circulatory Insight

Ibn Sina created a complex system for classifying pulse types according to their abnormalities, strength, pace, and rhythm. He explained more than 20 types of pulses, including:

Nabd-e-Ghazali (gazelle-like pulse),

Nabd-e-Mawji (wavy pulse),

Nabd-e-Namli (ant-like pulse),

Nabd-e-Dhanab al-Far (mouse-tail pulse) (7).

These divisions were used for prognostication, temperament analysis, and disease diagnosis. Centuries before William Harvey, his pulse theory, which is detailed in the Canon of Medicine and commentaries, demonstrates an early comprehension of vascular physiology and even gestures towards blood circulation (8).

Four-Stage Digestion Model

According to Ibn Sina, digestion occurs in four steps:

Gastric Digestion – in the stomach.

Hepatic Digestion – conversion of chyme into blood in the liver.

Vascular Digestion – refinement in blood vessels.

Tissue Digestion – final assimilation into organs.

He underlined that the material's temperament and quality change with each step, creating tissue. Long before enzymes and hormones were discovered, this model predicted the distribution and metabolism of nutrients throughout the body (9).

Distribution and Role of Spirits (Arwah)

Ibn Sina asserts that three categories of spiritual energies govern life:

The liver produces the Natural Spirit (Ruh-e-Tabiʿi), which supports growth and nourishment.

Originating in the heart, the vital spirit (Ruh-e-Haywani) is essential for circulation and movement.

The brain produces the Psychic Spirit (Ruh-e-Nafsani), which controls movement, thinking, and feeling (10).

Combining physiological and metaphysical elements, this tri-spiritual model suggests an internal regulation mechanism consistent with current cardiovascular, endocrine, and neurological coordination knowledge.

Temperament (Mizaj) and Functional Specificity

According to Ibn Sina, every organ has a unique mizaj, or temperament, that determines its resilience and function. The balance between an individual's temperament and environmental elements such as diet, emotions, and climate determines their level of health. To function correctly, organs such as the brain (cold and moist), heart (hot and dry), and liver (hot and moist) must retain their natural temperament (11).

This idea was the foundation for personalised and preventative treatment in the Unani tradition.

Reproductive and Developmental Physiology

Contrary to Galenic beliefs, Ibn Sina suggested that both sexes contribute semen during conception. He accurately described the stages of embryonic development and said that the heart forms first in the fetus. He also made remarkably accurate observations about menstruation, lactation, and uterine physiology (12).

Conclusion

Philosophical understanding, actual research, and classical tradition are expertly combined in Ibn Sina's contributions to Munafeul Aza. A systemic perspective of health, where form, function, temperament, and spirit intertwine to maintain life, was described by his holistic physiology. For centuries, Unani medicine and European medical curricula were shaped by his explanations of organ systems, digestion, pulse patterns, and spirit distribution (13).

Ibn Sina's method provides essential insights into systems thinking, patient-centered care, and the psychosomatic connection at a time when reductionist paradigms predominate in contemporary biomedicine. Globally, integrative medicine and holistic physiology are still motivated by his legacy.

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