



Journal Homepage: [-www.journalijar.com](http://www.journalijar.com)

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI:10.21474/IJAR01/15708
DOI URL: <http://dx.doi.org/10.21474/IJAR01/15708>



RESEARCH ARTICLE

MEDICINE OF HIPPOCRATES

Rashid Bhikha

Ibn Sina Institute of Tibb, Johannesburg, South Africa.

Manuscript Info

Manuscript History

Received: 15 September 2022

Final Accepted: 19 October 2022

Published: November 2022

Key words:

Hippocratic Medicine, Vis Medicatrix
Naturae, Individual's Uniqueness,
Humoral Theory, Lifestyle Factors

Abstract

In recognition of his contribution to the medical field, Hippocrates is universally known as the "Father of Medicine". He transformed medicine from superstition and magic to a scientific and evidence-based system. The core focus of Hippocratic medicine is an individualistic approach based on "Vis Medicatrix Naturae"- the healing power of nature, which acknowledges the uniqueness of each individual, as well as the effects of lifestyle in health and disease. More significantly, Hippocrates hypothesised the humoral theory. Furthermore, he advised on the importance of professionalism and medical ethics with respect to bedside manner, benevolence, and conduct. This led to the origin of the Hippocratic oath as we know it today. Ultimately, there is no era of medicine which is unmarked by Hippocrates. He laid the foundation of what is the essence of medical science today, including rationalism, ethics, patient care, observation skills and clinical experience. This paper focuses on the acknowledgement of Hippocrates, highlighting his contributions in medicine to this day.

Copy Right, IJAR, 2022, All rights reserved.

Introduction

The recognition of the contribution to medicine made by Hippocrates (460-370 B.C.), over 2500 years is still acknowledged in many medical philosophies. Famously known as the "Father of Medicine"¹, Hippocrates was born and practiced mainly in the city of Kos. He travelled to various regions of Greece including Athens, Thessaly, and Thrace, during his extensive medical career. His ideologies remain the foundation of medicine as we know it today, both in Western and many Eastern modalities^{2,3}.

Although many healthcare professionals are aware that Hippocrates hypothesised the theory of humours and the importance of recognizing the body's self-healing ability, known as Vis Medicatrix Naturae, Hippocrates also conceptualised the importance of the uniqueness of an individual, in relation to the environment, in the maintenance of health and treatment¹.

More significantly Hippocrates is known for transforming the practice of medicine which included superstition and magic, to a scientific system based on the principle of cause and effect, with professionalism and medical ethics. These ethical responsibilities are recognised to this day, with qualifying doctors committing to the Hippocratic oath^{2,3}.

Corresponding Author: Rashid Bhikha

Vis Medicatrix Naturae

The Medicine of Hippocrates recognises the body's inherent ability to heal itself, known as Vis Medicatrix Naturae^{4,5,6}. The term Vis Medicatrix Naturae, literally means "the healing power of nature", is the Latin rendering of the Greek Νόσων φύσει γιγνόμενοι ("Nature is the physician of diseases")⁷. Aristotle, (384 – 322 BC) a Greek philosopher described Vis Medicatrix Naturae (Νόσων φύσει γιγνόμενοι) as φύσις which was translated as "Physis" in Latin⁸.

Physis is the sum total of the body's natural, instinctive reactions and responses to maintain, and where necessary restore homeostasis - it is part of our genetic make-up. Physis is responsible for maintaining homeostasis between the physical, mental, emotional, and spiritual aspects of each person. Physis maintains, homeostasis, at a cellular/sub-cellular level, between all the organs and systems of the body, including the immune system, by constantly monitoring and adjusting the millions of biochemical and physiological pathways that are genetically designed⁸. The optimal functioning of physis is vital for the maintenance of health and prevention of disease. If an individual's homeostasis is maintained, disease will be prevented, if out of balance, disease will precipitate^{2,9}. The practice of the Medicine of Hippocrates highlights the importance of a physician to be constantly aware of physis, in both health promotion and treatment. It is interesting to note that the term "Physician" comes from the word physis, emphasising that the physician needs to assist physis in the maintenance and restoration of health - and not work against physis².

However, just as an individual's metabolism slows down with age, the efficiency of physis to restore homeostasis in the body becomes weaker from the approximate age of 40 onwards.

Humours

The humoral theory is one of the most important pillars in the Medicine of Hippocrates. The humoral theory hypothesises that the body consists of four bodily fluids - known as humours - Blood, Phlegm, Yellow Bile and Black Bile¹. The humours are a microcosmic form of the macrocosmic theory of the four elements of creation Earth, Water, Air and Fire in the Medicine of Hippocrates². These fluids exist in four elemental conditions - Cold, Hot, Dry and Moist^{1,10}. Based on this, the humoral theory was formulated, suggesting that if these bodily fluids/humours maintain a balanced and qualitative state, according to an individual's constitution, then the state of health will be maintained. When one humour is in excess or deficit, the ultimate humoral balance will be disturbed, and disease will precipitate^{1,2}.

Uniqueness of an Individual

The concept of the uniqueness of an individual can be traced back to ancient Greek philosophers as far back as the 4th century BC and was an important consideration for Hippocrates, as highlighted in his famous saying:

"It is more important to know what sort of person has a disease than to know what sort a disease a person has"

Hippocrates believed, it is more important to know what type of person is being treated, than the illness condition/s. Hippocrates' postulated that the humours, directly affect an individual's personality, behaviour and health^{1,11}. He based his treatment on an individualistic approach, identifying the importance of each individual and their constitution¹².

Galen (129 – 216 CE), expanded on the Hippocratic concept of uniqueness of an individual, and hypothesised the temperamental theory. According to Galen, based on the admixture of the four humours, there are four main types of temperaments, with a dominant humour^{13,14}. These include Sanguinous, Choleric, Phlegmatic and Melancholic, with two primary opposite qualities including Hot, Cold, Moist and Dry^{5,14}. The balance of these qualities associated with the dominant humour is directly linked to an individual's unique temperament – Sanguinous (Blood – Hot & Moist), Phlegmatic (Phlegm – Cold & Moist), Choleric/aka Bilious (Yellow Bile – Hot & Dry), and Melancholic (Black Bile – Cold & Dry)¹. If this unique qualitative balance is disturbed, the individual will experience symptoms of illness conditions, and treatment will be aimed at correcting this 'qualitative' and/or 'humoral imbalance', in relationship to the individual's temperament^{1,12,13}.

Galen's contribution to the Medicine of Hippocrates was the concept of **temperament** which described the uniqueness of an individual.

Uniqueness of an Individual in Relation to the Environment

Hippocrates identified the importance of environmental factors, in relation to the uniqueness/temperament of an individual. He postulated that life entails a reciprocal relationship between the organism and its environment¹⁵. Hippocrates hypothesised that the organism grows at the expense of the environment, taking from it what is necessary to sustain life and rejecting what is unnecessary. From Hippocrates' viewpoint disease was the occurrence of difficulty in this digestion – known as “Pepsis” of the environment by the organism. The term dyspepsia referring to indigestion – is still used today¹⁶. However, the term pepsis extends beyond the digestion of food, and includes the relationship between an individual and the environment¹⁷.

Pepsis was expanded upon during the 9th and 11th century by philosophers and physicians who described the environment within the context of the Six Essential/Lifestyle Factors as mentioned in Avicenna's Canon of Medicine¹⁸.

The Essential/Lifestyle Factors include “Air” which elaborates on the effect of environmental air, different seasons, pollution etc. “Physical Activity/Body Movement” elaborates on the effect of bodily movement and repose. “Sleep and Wakefulness” elaborates on sleep and wakefulness, and their mechanisms on the body. “Psychic movement and repose” elaborates on psychic movement and repose such as anger, happiness, etc., and their effects on the body. “Food and Drink” describes the qualitative effects of various foods and drinks. “Evacuation and Retention” elaborates on the impairment of normal functions of evacuation and retention that can lead to illness conditions¹⁹.

The impact of Lifestyle Factors is based on the qualitative effect of each of the Lifestyle Factors. For example, weather is either hot or cold, foods such as ginger are heating, sleep is cooling, and exercise produces heat¹⁹.

Lifestyle Factors, especially diet results in qualitative changes to an individual's humoral balance, which if beyond the ability of Physis to restore homeostasis, will result in the development of illness conditions.

The relationship between the uniqueness/temperament of an individual and the environment was researched and comprehensively detailed as the **Six Essential/Lifestyle Factors**.

Scientific System of Medicine based on Clinical Evidence

Hippocrates implemented the documentation of a detailed medical history for each patient, followed by physical observation and clinical examinations – based on this a diagnosis was made and prognosis could be established. He is thus responsible for developing evidence-based medicine as we know it today, through documentation and the comparison of findings for each illness condition among different patients⁴. Hippocrates emphasized that information of illness conditions should be collected using vision, auscultation, olfactory senses, taste, and palpation. These sensory mechanisms were used as a tool to collect information, record it by documentation and used for future reference²⁰. On this basis, he developed theories which were elaborated upon, and original conclusions could be drawn^{2,9}. This was the initiation of research and the basis of clinical medicine as it is practiced today.

Hippocrates introduced many medical terms universally used by physicians including symptom, diagnosis, therapy, and sepsis. He also described various illness conditions clinically, viz – diabetes, gastritis, enteritis, and arthritis, amongst others⁴. Based on all his clinical findings, Hippocrates and his followers wrote extensive medical literature, included in the ‘Hippocratic Corpus’, consisting of 72 books divided into 53 chapters. These medical texts and practice were used as a reference for medical practitioners². He advised that each physician should consult medical text and engage with research to enhance their knowledge on specific illness conditions and progress of medicine.

Professionalism and Medical Ethics

The basis of professionalism and medical ethics are also attributed to the contributions of Hippocrates. The Medicine of Hippocrates focused on the integrity of the profession, through benevolence and human dignity. He advised that the physician should always be honest, calm, and understanding when dealing with a patient. He emphasized that physicians treat each patient with respect and communicate their knowledge of the disease in a manner that is understandable and beneficial to the patient²⁰. Hippocrates further advised that the physician keep an open mind and act in a respectful manner when treating a patient. “Primum non nocere” was the advice from Hippocrates, advising physicians to ‘first do no harm’²¹. According to Hippocrates, the body has the ability to heal itself. On this basis he advised - “Make a habit of two things: to help; or to do no harm”. Therefore, the role of the

physician is to assist the healing process by using the most natural treatment regimens such as diet and lifestyle, before administering strong medicines⁸.

Based on these guidelines, the Hippocratic oath was established as the basic guidelines for clinical medicine^{22,23}. The Hippocratic oath is meant to encourage good bedside manner, benevolence, and professional medical conduct. Another famous saying of Hippocrates is, "Cure sometimes, treat often, comfort always"^{24,25}. The Hippocratic oath is still used in medicine today. It ensures good and safe clinical practice as per the guidelines of the 'Father of Medicine'²⁶.

In essence, the foundation of clinical medicine has been laid down by the extensive contributions of Hippocrates. There is no area of medicine which is unmarked by him. His teachings were extensive in all areas of modern medicine. He remains universally recognized as the "Father of Medicine", as he has laid down the fundamentals of ethical principles and the practice of clinical medicine, still practiced today^{9,27}.

Conclusion

Ultimately, there is no era of medicine which is unmarked by Hippocrates, who not only hypothesised the humoral theory, and the importance of recognising the body's self-healing ability known as *Vis Medicatrix Naturae/Physis*, but also conceptualised the uniqueness of an individual, known as Temperament, in relation to the environment interpreted as the Six Essential/Lifestyle Factors within the context of Pepsis. Also attributed to Hippocrates is the transformation of the practice of medicine which included superstition and magic to evidence-based medicine, as well as professionalism and medical ethics, included in the Hippocratic oath. More significantly, the recognition of Hippocrates as the "Father of Medicine" is based on the founding principles of the Medicine of Hippocrates that both health and disease are dependent on physical, mental, emotional, and spiritual influences.

References

1. Konstantinos Kalachanis, I. E. (2015). The Hippocratic View on Humors and Human Temperament. *European Journal of Social Behaviour* 2, 1-5.
2. YAPIJAKIS, C. (2014). Hippocrates of Kos, the Father of Clinical Medicine, and Asclepiades of Bithynia, the Father of Molecular Medicine. *in vivo*, 507-514.
3. Garrison, F. H. (1966). *History of Medicine*. Philadelphia: W.B Saunders Company.
4. Christos F. Kleisiaris, C. S. (2014). Health care practices in ancient Greece: The Hippocratic ideal. *Journal of Medical Ethics and History of Medicine*, 1-5.
5. Jouanna, J. (2012). The legacy of the Hippocratic treatise the nature of Man: The theory of the four humours. In J. Jouanna, *Greek Medicine from Hippocrates to Galen* (pp. 335-359). Brill.
6. Alan C Logan, E. M. (2012). *Vis Medicatrix naturae: does nature "minister to the mind"?* *BioPsychoSocial Medicine*, 1-10.
7. Last, J. M. (2007). *A dictionary of Public Health*. Oxford University Press.
8. Dr Fateh Ali Tipo, D. B. (2019). Understanding concept of Tabiat (Physis) in the view of Unani physicians: A literature review. *International Journal of Research and Analytical Reviews*, 265-268.
9. Ljiljana Suvajdžić*, A. D. (2016). Hippocrates – The Father of Modern Medicine. *VOJNOSANITETSKI PREGLED*, 1181-1186.
10. Tatjana Lazarevic, Z. K. (2021, May). *MEDICINE IN THE HIPPOCRATIC AND POST-HIPPOCRATIC AGE*. *Vojnosanitetskipregled*, pp. 1-19. doi: <https://doi.org/10.2298/VSP210325057L>
11. Sebers, R. (2016). What's Your Temperament: The Humoral Theory's Influence on Medicine in Ancient Greece. *Young historians conference*, (pp. 1-13). Portland state.
12. Eleni Tsiompanou, S. G. (2013). Hippocrates: timeless still. *Journal of the Royal Society of Medicine*, 288-292.
13. Jesper Dammeyer, I. Z. (2018). A Brief Historical overview on links between personality and health. *Personality and Disease*.
14. Sheehan, H. E. (2002). *Unani Tibb: History, Theory, and Contemporary Practice in South Asia*. *The Annals of the American Academy of Political and Social Science*, 122-135.
15. Renger F. Witkamp, K. v. (2018). Let thy food be thy medicine.... when possible. *European Journal of Pharmacology*, 102-114.
16. Chishti, H. (1988). *The traditional Healer's Handbook*. Vermont: Healing Arts Press.
17. Bujalkova M, S. S. (2001). Hippocrates' humoral pathology in nowadays reflections. *Debate and Education*, 489-492.

18. Bakhtiar, L., Gruner, O. C., Shah, M. H., Crook, J. R., Nasr, S. H., & Avicenna, (1999). The canon of medicine (al-Qanoon fi'l-tibb).
19. Rasool Choopani, Majid Emtiyaz. (2016). The Concept of Lifestyle Factors, Based on the teachings of Avicenna (Ibn Sina). Published in the International Journal of Preventative Medicine, September 2016.
20. Margotta, R. (1968). The story of Medicine. New York: Golden Press.
21. Georgios Pappas, I. J. (2008). Insights into infectious disease in the era of Hippocrates. International Journal of Infectious Diseases, 347-350.
22. Hulkower, R. (2010). The History of the Hippocratic Oath: Outdated, Inauthentic and Yet still Relevant. The Einstein Journal of Biology and Medicine, 41-44.
23. Jotterand, F. (2005). The Hippocratic oath of and Contemporary medicine: dialect between past ideals and present reality. Journal of Med Philos, 107-128.
24. Miron-Shatz T, B. S. (2017). A phenomenal person and doctor”: thank you letters to medical care providers. Interact J Med Res.
25. Gabriel M. Ronen, O. K. (2020). How Can We Create Osler’s “Great Physician”? Fundamentals for Physicians’ Competency in the Twenty-first Century. Medical Science Educator, 1279-1984.
26. Vishal Indla, M. R. (2019). Hippocratic Oath: Losing relevance in today’s world? Indian Journal of Psychiatry, 773-775.
27. Miles, S. (2009). The art of Medicine: Hippocrates and informed consent. Lancet.