ABSTRACT:
There is considerable debate on the meaning of Islamic Medicine, and its relationship to other medical doctrines, especially Western medicine. Previous definitions of Islamic Medicine affirm that it is any practice of medicine which does not contradict the basic tenets of the Islamic doctrine. In this article the author suggests that Islamic Medicine should adhere to the theoretical and philosophical principles of the temperamental and humoral theories from the Qurían and sunnah, and should be practiced in accordance with the concepts, values and procedures of Islamic Sharia law.

The development of Islamic medicine in the context of Greek, Chinese and Ayurvedic medicine has lead to several common concepts, such as inner healing and internal harmony, the adoption of a holistic approach to healing, and the role of spiritual influence. However, there are significant differences between them, such as the nature of the worldview and the concept of creation. The role of the Prophet (SAW) as in iTibb An-Nabawi, plus that of the several early Islamic philosophers in the progress of Islamic medicine was immense, and led to the general adoption of the principles and practice of Islamic medicine in much of the civilised world, including Europe. These principles are to this day embodied in Tibb (medicine).

This situation was transformed by the advent of Western medicine, beginning in the Renaissance but culminating around 100 years ago. This adopted the ‘Cartesian’ model of the human body, the “germ theory of disease” and ‘the theory of specific aetiology’ as major pillars of its philosophy. The holistic approach and the contribution of non-physical, particularly mental and spiritual, values were summarily discarded. Although Western medicine overlaps with Tibb in a number of ways, it differs substantially in both its worldview, and in important aspects of both diagnosis and treatment.

Introduction
The fundamental concepts of Islamic Medicine have been debated, discussed and analysed extensively, especially over the past few decades. Amongst the many questions posed are, “What is Islamic Medicine?”, ‘Is Islamic Medicine the same as Muslim Medicine?”, “Does a medical practice that does not contravene Sharia law make it Islamic?”, “What are the criteria that determine whether a system of medicine is Islamic?” This paper reviews the literature on the subject, and aims to answer these questions within the context of the history and practice of medicine before and after the advent of Islam. It places special emphasis on the concept of Islamic Medicine in relation to conventional or Western medicine.

Medicine Pre-Islamic Era
Prior to the advent of Islam there existed three main philosophies associated with the practice of medicine, namely, the Greek, the Chinese and the Ayurvedic (Indian) healing systems. From these three branches a number of variations arose, either as off-shoots from one of the systems, or in the form of a combination of different systems. Whilst there are commonalities in all the three systems, fundamental differences do exist between them. These differences emanate from the particular belief system, or worldview, associated with each of them. This worldview (described in the Oxford Dictionary as: “philosophy of life or concept of the world” is the sum total of the religious, cultural, moral, traditional and social influences on these systems.
The table below highlights the similarities and differences between the three medical systems, in the context of the worldview associated with each.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Ayurvedic Medicine</th>
<th>Chinese Medicine</th>
<th>Greek Medicine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concept of Creation</td>
<td>Elements - earth, water, air, fire and space</td>
<td>Elements - earth, water, fire, wood and metal</td>
<td>Elements - earth, water, air and fire</td>
</tr>
<tr>
<td>Inherent wisdom that maintains and restores homeostasis</td>
<td>Prana</td>
<td>Chi energy</td>
<td>Physis (vis medicatrix natura)</td>
</tr>
<tr>
<td>Biologic/ Metabolic (Internal) force</td>
<td>Doshas (energy dominance)</td>
<td>Yin and Yang (energy dominance)</td>
<td>Humours (metabolic dominance)</td>
</tr>
<tr>
<td>Religious influences</td>
<td>Hinduism/Buddhism</td>
<td>Taoism/Confucianism/Buddhism</td>
<td>Abrahamic origin</td>
</tr>
<tr>
<td>Health/Disease</td>
<td>Homeostasis/imbalance in Doshas</td>
<td>Homeostasis/imbalance in Yin and Yang</td>
<td>Homeostasis/</td>
</tr>
</tbody>
</table>

From the above chart we note that the three systems have similar concepts with respect to (a) the presence of an inherent wisdom that is responsible for health preservation and restoration; and (b) by the maintenance of equilibrium by an active force (metabolic or energy based) within the human body. In addition there is a strong spiritual influence, often infused with superstition and magic, as well as a concept of creation that interprets the relationship between man and the universe (that is, the interaction between macrocosm and microcosm). These concepts provide a firm basis for understanding and interpreting the specific aetiology of different diseases, the pathological processes underlying these diseases, and the application of treatment emanating from the respective disciplines within a holistic worldview.

Although there are significant similarities between the three healing systems, there are a number of fundamental differences. An important one relates to the concept of creation. According to their respective models, the Chinese and the Ayurvedic systems believe that everything in the universe - including man - is created from five elements or primary matter, whereas in Greek medicine only four primary elements are identified. These primary elements should not be interpreted as physical states of earth and water etc. but rather as metaphysical states from which the basic elements necessary for the existence of matter are formed.

The concept of creation is the foundation from which different belief systems originate, as it interprets where we come from, what we are made up of (our constitution), our purpose in this world, and what happens to us after death. Our approach to these issues helps to shape our worldview.

**Medicine Post-Islamic Era**

The birth of Prophet Mohammed (SAW) heralded the culmination and perfection of the guidance from Allah (SWA) to mankind, as mentioned in the Qur’anic verse: “this day I have perfected your religion for you, completed my favour upon you, and have chosen for you Islam as your religion” (05:03). This “perfection” is embodied in the Qur’an (the source of all knowledge) and the Sunnah (the manifestation and interpretation of the Qur’an). It refers to the guidance that began with Prophet Adam (AS), the approximate 120 000 Prophets that followed, as well as the revealed books. The revelation of the Qur’an together with the Sunnah is the culmination of this guidance, and provides unequivocal direction and insights into all fields of knowledge including healthcare.

In addition to providing guidance to mankind, the Qur’an and Sunnah catalyse the seeking of knowledge and scientific enquiry within the context of the Islamic ethos. In fact the Golden Age of Muslim civilisation reached its peak purely because of this guidance that provided insights into every field of knowledge, ranging from the basic physical and social sciences through to philosophy and medicine.
Development of Medicine within the Context of the Qurían and Sunnah

Muslim scholars and physicians in the early days critically examined all available medical philosophies and practices within the context of their belief system. It was not surprising that they adopted the Greek model because of the common roots to the Abrahamic teachings, at the same time staying within the Islamic ethos of tawheed.

Muslims amplified and developed the theoretical principles of Greek medicine into a comprehensive and practical system of medicine. This was accomplished by many physicians and included Al-Razi (d. 317 A.H / 930 C.E), Al-Zahrawi (d. 403 A.H / 1013 C.E), Ibn Sina (d. 428 A.H / 1037 C.E), Ibn Rushíd (d. 594 A.H / 1198 C.E), and Ibn Nafis (d. 686 A.H / 1288 C.E) amongst others.

The Muslim contribution to medicine was developed not only within the scope of medical practice as we know it today with respect to the basic sciences, but also within the context of social, philosophical and associated disciplines which directly or indirectly influenced the theory and practice of medicine. Most of the contributors in the field of medicine were also knowledgeable in other fields of study. Ibn Sina, known as the “Prince of physicians”, was also a renowned philosopher and polymath, writing extensively in astronomy, mathematics, metaphysics and logic. This “broad based” knowledge enabled them to interpret and understand with wisdom the Qurian and the sunnah within the framework of medical theory and practice.

Ibn Sina’s “al-Qanun fil - Tibb” (the Canon of Medicine), described in the Encyclopedia Britannica as the most comprehensive work on medicine produced in the history of Man, was the reference medical text book used for more then 600 hundred years all over the world, including Europe. The Canon of Medicine comprises five volumes, and covers all aspects of medicine from the philosophical principles of medicine (Tibb), anatomy, pathology, diagnosis and treatment using natural ingredients7. Volume one specifically deals with the principles of both the theoretical and practical aspects of Tibb (medicine) based on the temperamental and humoral theories. These theories, expanded upon by the Muslim physicians, provide a comprehensive elucidation of the Tibb approach to the key medical disciplines of aetiology, pathology, diagnosis and treatment, within scientific parameters.

Post-Islamic development of Medicine within the context of Tibb An-Nabawi “Tibb An-Nabawi”, or “Medicine of the Prophet”, by Ibn Qayyim Al - Jawziyyah (d. 751 A.H / 1350 C.E) and Jalalu’d - Din As -Sayuti (d. 911 A.H / 1505 C.E) is a compilation of Qur’anic verses and traditions of the Prophet (SAW) that deals with the theory and practice of medicine and treatment involving cupping and medicinal herbs. Ethical considerations in the practice of medicine, as well as the application of spiritual healing, are also reviewed8,9.

Although the Prophet (SAW) was not a healer per se, his sunnah together with the Qurian provide definitive and clear guidelines in healthcare. It is acknowledged that the examples of Prophetic traditions mentioned in these books with respect to different illnesses and their advised treatment might not be particularly relevant today. However, the rationale or wisdom behind every tradition of the Prophet (SAW) and verse from the Qurian is in keeping with the temperamental and humoral theories of Tibb.

This time-tested system of medicine that was developed through revelation and inspiration and perfected with the religion of Islam, was practiced until the 19th century, not only in the Muslim world or where Islam was practiced, but also in the Christian regions of Europe, where this system was embraced during the European renaissance period.

This is clearly evident in Graeme Tobyní’s iCulpeperís Medicine - Practice of Western Holistic Medicineî, that describes the role of Nicholas Culpeper (d. 1654 C.E) in popularising the Tibb system of medicine in England during the 17th century10. The very same principles from the Canon of Medicine form the basis of Culpeperís Medicine. It is important to note that even though there are undeniable differences between the religions of Islam, Christianity and Judaism, their common roots extending back to the Prophet Abraham (A.S) enabled all three religious groups to accept the fundamental principles of Tibb. The reason is that all three share similar worldviews in the concept of creation, religious and moral values, as well as the acceptance of life after death.
Whilst the European renaissance adopted the Muslim contribution to healthcare, the renaissance also ushered in a secular dimension in healthcare, which laid the foundation of modern Western medicine. A system of medicine that originated from Hippocrates and was known by many different names over the centuries (such as Greek medicine, Graeco-Arab medicine, Islamic Medicine, Western herbal medicine, Unani medicine and Tibb) was destined to make an abrupt and complete quantum change in direction.

**The development of Western medicine**

Although the history of Western medicine traces its roots back to Hippocrates, the practice of Western medicine today is not strictly in line with the principles of the founders of medicine\textsuperscript{11}. Western medicine, as practiced today, is just over a century old. It originated during the period of the Renaissance, during which the objective thinking of the newly described causative theory of modern science slowly replaced the earlier holistic models which had predominated for nearly 2000 years. The new paradigm is often termed the “Cartesian model”, being named after the French philosopher, Rene D\'escartes (1596-1650)\textsuperscript{12}. This model, it was claimed, invalidated the humoral concepts of the holistic principles of Tibb and promoted the ideology that man was separate from nature, and could be viewed objectively through experiment\textsuperscript{13}. This heralded the birth of Western medicine, and was reinforced by Rudolph Virchow (1821-1902), who demonstrated that disease begins with changes in living cells, and by Louis Pasteur (1822-1895)\textsuperscript{14} whose role in the development of the germ theory of infection was of key importance\textsuperscript{15}.

According to the new paradigm, every disease was associated with a specific micro-organism - the so-called “germ theory of disease”. Another pillar on which Western medicine is based is the “doctrine of specific aetiology”, wherein most diseases are often reduced to a simple cause - a micro-organism, an inborn error of metabolism, a cellular membrane defect, or one or other physiological or biochemical malfunctioning\textsuperscript{15}. This simplistic approach presupposes that illnesses are associated with or linked to specific causes\textsuperscript{16}. The holistic attitude to disease was rejected in favour of the doctrine of specific aetiology, reductionism, and a tendency to view the body as a machine. The spiritual component of illness was effectively suppressed and eliminated.

In practice, Western medicine relies heavily on the use of drugs, which are largely artificial chemicals, alien to the body. These generally work intrusively, independently of and without concern for the body's innate healing ability. Drugs generally act by inhibiting or blocking normal metabolic processes at specific tissue receptor sites, or by inhibiting particular enzymes which are part of the body's normal pathway. Either way, the normal functioning of the body is disrupted, at a critical time when Physis is trying to restore equilibrium in the ailing patient. Some drugs, such as antibiotics and steroids, are known to actually oppose the patientís immune system. The occurrence of a myriad of side effects from most drugs does not therefore come as a surprise.

A major component of Western medicine is surgery. This has developed exponentially as modern technology has improved surgical techniques and post-op care, and provided better imaging and highly effective anaesthetics and analgesics. However, leaving aside the controversies relating to the excessive use or abuse of particular surgical interventions, many procedures override Physis' intrinsic self-healing processes.

**Philosophy of Western medicine**

The philosophy of this is based exclusively on the physical world, and rigorously excludes any explanation that goes beyond this\textsuperscript{15,17} - “If it can't be measured, it doesnít exist”. It regards as irrelevant any suggestion that involves the intervention of any agent from outside the natural totally physical system perceived by the practitioners of Western medicine. Furthermore, Western medicine regards the body in purely mechanistic terms, modeled on the complex physiological machine described by Descartes\textsuperscript{15}. In this model, health and illness are seen in terms of relationships between the bodyís components and substructures, and the mind is considered independent of the body, and therefore irrelevant in the health/disease context. The causes of disease are accordingly presented in terms of such concepts as chemical imbalance, virus replication, serum levels, enzyme malfunction, systems overload and so on.
Western medicine refers to the knowledge, practices, organisation, and social roles of medicine in Westernised cultures\textsuperscript{18}. Disease is viewed as a physical or mechanical disorder with little relationship to a personís psychological, social and spiritual experiences. Treatment usually involves reacting to and suppressing symptoms, rather than encouraging self-healing or disease prevention\textsuperscript{19}.

In support of Western medicine is that it is scientifically based, and has led without doubt to astonishing advances in the diagnosis of disease, clinical investigations, pharmacotherapy, and in emergency treatment. It is differentiated from other medical care systems by quickly adopting innovations based on research and development in the scientific and technological fields. In addition, Western medicine has followed the specialisation route, which has led to the plethora of specialists in disorders of specific organs and tissues - cardiologists, dermatologists and neurologists, for example. Although this may have certain advantages regarding the nature of specific diseases, it is unfortunately based on the premise that patients should be regarded as collections of separate body parts and organ systems\textsuperscript{19}. The traditional concept of the holistic nature of the body is rejected.

**Differences between Tibb and Western medicine**
The table below lists the difference between Tibb and Western medicine with respect to their worldviews and in the practice of medicine.

<table>
<thead>
<tr>
<th>The Tibb approach</th>
<th>The approach of Western medicine</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Worldview</strong></td>
<td><strong>Worldview</strong></td>
</tr>
<tr>
<td>• Concept of creation in accordance with the Abrahamic scriptures</td>
<td>• Creation based on the “Big bang theory” and to a certain extent on Darwin’s theory on evolution.</td>
</tr>
<tr>
<td>• Belief system in accordance with the Abrahamic scriptures, an Islamic ethos that emphasizes the responsibility of vice-regency which determines social and moral values in accordance with Sharia</td>
<td>• Does not consider religious or spiritual aspects significant; a secular approach based on materialism and existentialism that determines social and moral values.</td>
</tr>
<tr>
<td><strong>Medical Practice</strong></td>
<td><strong>Medical Practice</strong></td>
</tr>
<tr>
<td>• Based on the principles of physis, humours, temperament and lifestyle factors</td>
<td>• Based on the doctrine of specific aetiology, and the germ theory.</td>
</tr>
<tr>
<td>• Illnesses are the result of temperamental and humoral imbalance</td>
<td>• Illnesses are the result of physiological or bio-chemical malfunctioning or from microbial infection.</td>
</tr>
<tr>
<td>• The objective of treatment is to support physis in restoring homeostasis with minimal side effects.</td>
<td>• The objective of treatment is addressing symptoms, restoring bio-chemical imbalances and destroying microbes resulting in extensive side effects.</td>
</tr>
</tbody>
</table>

From the above table it is quite apparent that there are fundamental differences between the Tibb approach to medical care and that of Western medicine.
In order to define Islamic medicine it is necessary to differentiate between the philosophy and the practice of medical systems. All systems of medicine have many practices that are common in diagnoses and treatment. For example diagnoses in the developed systems of medicine such as Western medicine, Chinese, Tibb, Ayurveda, Homeopathy, Phytotherapy etc. have incorporated the latest diagnostic procedures. In addition these systems, especially the complementary and alternate disciplines share many common medicinal substances.

However it is the theoretical and philosophical interpretation of the signs and symptoms and the pathological processes associated with the disease that differentiates one system from another. A simple example would be the different interpretations associated with the common cold. From the Tibb perspective it would be the result of a temperamental imbalance associated with the phlegmatic humour, the Ayurvedic perspective would diagnose it as a kapha imbalance whereas Western medicine would determine the cause as being a viral infection. Similarly treatment applied with respect to the use of medication as well as procedures may also be similar, although the rationale behind the treatment would be from the respective discipline.

However, there are also treatment procedures and techniques which are unique and specific to each of the systems, some of which are totally unacceptable to other systems in keeping with their worldview. For example the practice of Urotherapy (urine therapy) or abortion on demand would be unacceptable within the context of Islamic medicine.

One of the criteria debated in defining Islamic medicine is based on the viewpoint that as long as a practice or procedure does not contravene Sharia law, that procedure or practice can be considered Islamic. This cannot be considered a sound criterion, as the rationale or the philosophy behind the practice is ultimately what matters.

Another perspective of the debate is “Islamisation” of Western medicine or for that matter any other medical system. How can this be possible if the fundamental philosophy or worldview associated with the medicine is not in keeping with the Islamic ethos? The exercise would in effect be sugar coating a core that is unacceptable.

**Conclusion - Defining Islamic Medicine**

Islamic medicine is a system of medicine that encompasses the theoretical and philosophical principles of the temperamental and humoral theory from the Qur’an and sunnah. In addition it is a practice of medicine that does not contravene Sharia laws, encompasses an Islamic ethos that addresses the physical, mental, emotional and spiritual needs of an individual, ensuring an enhanced quality of life.

The above definition highlights two important criteria. One relates to the theory and philosophy of medicine, and the other to the practice of medicine. With the understanding that the Prophet (SAW) was sent as a mercy unto mankind and the Qur’an is the final revelation from Allah (SWA), the relevance and validity of this system of medicine is for all time and for all of mankind. Islamic medicine, which traces its roots back to the Hippocratic principles of cause and effect, epitomizes a “science of medicine”, and if practiced within a truly Islamic ethos that recognizes that all healing comes from Allah (SWA), it becomes “the art of care”.

“And when I am sick, then He heals me.” (Qur’an: 26.80)
References
5. Muslim Heritage [Online];