

Medical Sciences in the Third Millennium: An Avicennian Approach



SZ Tabei^{1*}, A Riazi²

¹Department of Pathology, Shiraz University of Medical Sciences, Shiraz, Iran, ²Department of Foreign Languages & Linguistics, Shiraz University, Shiraz, Iran

Abstract

This paper sets off with an argument that as an outcome of modernism, medical sciences excluded human soul and spirit and followed a more, if not mere, mechanico-chemical approach in treating patients. It then discusses alternative approaches to medicine and that models of medicine and health care are looking into not only the fundamental spiritual dimension of care, but also the significance of spiritual development of the individual towards healing. The paper presents Avicenna as a forerunner in medical sciences with a (w) holistic view while his contribution to cure and healing will be highlighted. The paper will end with some concluding remarks.

Keywords: Medical Sciences; Third Millennium; Avicenna

Introduction

As an outcome of modernism, medical sciences excluded human soul and spirit and followed a more, if not mere, mechanico-chemical approach in treating patients. While this approach to medicine has had its tremendous progress and results in curing diseases that threatened human beings for centuries, it has not been without some criticisms. The major criticism has been that of ignoring the significant interaction between the spiritual and the material faculties in the well being of human beings. The fact is that as human beings we have a very complex and complicated system in that both our material and spiritual beings in-

teract to form our state of mind and body health and behavior. Thus neglecting any of them would some how distort comprehensive solutions to medical problems. While modern medicine plays a dominant role in the treatment of acute medical conditions, certain forms of alternative medicines do work for certain medical conditions when compared to the modern or conventional ones. There has been a move in different parts of the globe to attend to what has come to be labeled as "alternative medicine" to bring into consideration the spiritual aspects of human entity at the service of curing medical illnesses. The term alternative medicine, as used in the modern western world, encompasses any healing practice "that does not fall within the realm of conventional medicine."² It is frequently grouped with complementary medicine, which generally refers to the same interventions when used in conjunction with mainstream techniques, under the umbrella term

*Correspondence: Seyed Ziaoddin Tabei, MD, Professor of Department of Pathology, Shiraz University of Medical Sciences, Shiraz, Iran. Tel: +98-711-2357282, Fax: +98-711-2357282, e-mail: mehrabad@sums.ac.ir
Received: July 17, 2008 Accepted: October 11, 2008

complementary and alternative medicine, or CAM.³ Some significant researchers in alternative medicine, however, oppose this grouping preferring to emphasize differences of alternative and conventional medicine.

Many physicians and patients all over the world now believe in the spiritual dimension in healing. Such spirituality could be the power of prayer as an adjunct or complementary medicine to modern or conventional medicine. According to¹⁰, recently there has been a tremendous surge in interest and publications in the field of spiritual medicine in the United States. An abundance of articles, books, and conferences in recent years have addressed the impact of spirituality on patient, physician, and health care. Recent studies indicate that spiritual healing can help with any problem-mental, physical or emotional. Accordingly, models of medicine and health care are looking into not only the fundamental spiritual dimension of care, but also the significance of spiritual development of the individual towards healing. From the old ages, China and Far East have been the cradle of philosophy and art to the extent that prophet of Islam, Mohammad (pbuh), invited his followers to travel to those regions to learn the knowledge and skill of the time. However, according to history the climax of the growth and flourishing of the balanced thinking and art emerged in the Middle East with the Ibrahimi prophets and their followers. A phenomenon that transferred to the west later though it is setting there. In the third millennium it seems that a modern science and art will originate in the east and Middle East.

The Transformation of Medical Sciences

As philosophy initially gets its insight from a divine source, medicine should be nourished from philosophy in order to keep its sustainability and continued flourishing. Traditional medicine in China, India, Persia and Greece followed the same path for centuries before the birth of Christ. Philosophers and wise men were in charge of medicine as it was believed they had a comprehensive knowledge of human body and soul. Attention to cause and effect in medicine is based on philosophical sense of cause of illness or etiology. In fact, the foundation of experience in medical sciences is based on the same governing rules. One might say that today's medical sciences have evolved based on "why" and "how" (why in philosophy and how in experimental sciences) of the phenomena.

Avicenna, an example in this regard, made enduring contributions to this area and could be considered one of the forerunners in founding the bases of medicine. He is especially famous for his insights into the non-material nature of the human soul and the effect this might have on human body. While superstitious beliefs such as Vitalism were practiced in the middle ages in Europe, European medicine was transformed after Renaissance borrowing from Avicennian medicine. Europeans have declared that Avicenna was the key figure in transforming western medicine and has been the founder of the present day medicine in the west.⁷ This medicine was based on the cause and effect originated from the philosophical "why" and the scientific "how". Over the last three or four centuries with the dominance of Newtonian physics we witness a mechanical approach in medicine with lots of areas of specialization in that physicians try to repair human body using tools and appliances according to Newtonian machine.¹⁵ However, as Newtonian physics has been substituted by quantum physics, medical sciences should also transform and incorporate human soul and spirit once again in diagnosing and curing diseases.

The focus of this paper is thus to provide an awareness of a prototype Islamic health practice as suggested by Avicenna and how it could be matched with the recent "alternative medicine" move especially in the Western countries. As such, first a brief overview of who Avicenna was with an emphasis on his medical views will be presented and then major aspects of Avicenna's contribution to cure and healing will be highlighted. The paper will end with some concluding remarks.

Who was Avicenna?

Abu Ali Sina or Ibn Sina or as he has been known in the West, Avicenna (980-1037) was a Persian physician and philosopher. He was born near Bukhara then capital of the Samanid dynasty. By the time he was 10 years old he had learned the Qoran as well as Arabic grammar and literature. By the age of 16 he had mastered not only natural science and rudimentary metaphysics but also medical theory. He was not satisfied with merely a theoretical understanding of medicine so he began to treat the sick with a humanitarian motive and to put his learning in good use. He knew enough about medicine to treat the ailing Samanid ruler Nuh Ibn Mansur. The successful treatment of the ruler gained Avicenna access to the

rich library of that prince.

Avicenna was one of the main interpreters of Aristotle and was the author of almost 200 books on science, religion and philosophy. Avicenna's two most important works are: *Shifa* (The Book of Healing) and *Al Qanun fi Tibb* (The Canon of Medicine). The first is a philosophical encyclopedia based on Aristotelian tradition and the second is the most famous single book in the history of medicine. His medical system was long the standard in Europe where he is also known as the "Prince of Physicians" for his famous medical text *Al Qanun* (The Canon). Avicenna died in 1037 in Hamadan, Iran.

George Sarton¹⁶, the father of the history of science, described Avicenna as "one of the greatest thinkers and medical scholars in history" and called him "the most famous scientist of Islam and one of the most famous of all races, places, and times." Avicenna was one of the most brilliant figures in the history of medicine. He was described as having the mind of Goethe and the genius of Leonardo da Vinci. Dante acknowledged him in the *Divina Comedia*, and Chaucer in the *Canterbury Tales*.⁹

According to⁸, the work for which Avicenna is best remembered for is *Al-Qanun fi'l-Tibb* (The Canon of Medicine). The influence of this work is evident not only because of its influence in the Islamic world (which was already quite advanced at that time), but was also studied in European universities for centuries. The book was first translated in 12 century by Gerard of Cremona (printed 15 times before 1500) and then a new translation¹⁴ was published. It was also the second text ever to be printed in Arabic (1593). Today, in a time in which major discoveries are made yearly, the creation of a work which is relevant for 500 years points to Avicenna's insight and understanding of the medical sciences. The book, as stated in⁹, contains over a million words in five books titled:¹ General Principles of Medical Practice,² Simple Drugs,³ Local Disease,⁴ General Diseases and⁵ Compound Medicines. Diseases were categorized according to their degree of heat, cold, dryness and moisture. The principle of medical treatment was based on the Rule of Opposites:

If a disease originates from heat, it must be treated with cold, if from moisture, then with dryness, etc. If the cause is fear or grief, then the physician must induce tranquility and confidence in his patient, but first, the etiology of the disease must be understood; only then is it possible to begin treatment.

A comment by a customer on amazon.com site on Avicenna's *The Canon* reads as the following:

This Persian (Iranian) Moslem doctor contributed a lot to the medical world especially by his 5 volume text "The Canon of Medicine." It's clear and well written and one with enough knowledge of human body and herbs (taxonomy + physiology of plants) can easily follow this book even at this time. It combines Persian, Greek, and Islamic science to create the most intensive and advanced level of pre-modern medicine. The book is much more useful and practical than any other alternative medicine (text).

Avicenna's Philosophy of Medicine

As¹³ stated, although Avicenna made advances in pharmacology and in clinical practice, his greatest contribution was probably in the philosophy of medicine. He created a system of medicine that today we would call holistic and in which physical and psychological factors, drugs, and diet were combined in treating patients.

According to¹, in Avicenna's view, the human being consists of both hidden and open elements. Known to us is the perceptible human body with its organs and its cells. 'Sensory perception stops at its exterior, while anatomy (dissection) enables us to learn about the interior; the hidden part consists of the powers of its mind'. These mental powers motivate the human being, and cause it to carry out its various activities and behave as a human being. To Avicenna, the human is a tangible body on the outside, revealed within by means of anatomy—as we see in his books, such as *The Canon*—and we do not find any difficulty today in accepting this. We still have to look at the mental powers or faculties that motivate this body.

⁵Aalso stated, like another Persian alchemist-physician-philosopher Mohammad Zakariyya Razi or Rhazes (865 to 925 AD), Avicenna challenged the thoughts and writings of Socrates, Aristotle and Galen regarding the dichotomy of the mind and body and espoused the concept of mental health and self-esteem as being essential to a patient's welfare. He noted the close relationship between emotions and the physical condition and felt that music had a definite physical and psychological effect on patients. Furthermore, he stated that the etiology of the disease must be understood; only then is it possible to begin treatment.

Secrets to Avicenna's Success

Avicenna had a three dimensional character as

described below that endowed him with a (w) holistic perspective when encountering different phenomena.

1. In experimental science he was exceptional; it has been said that he was a high ranking Galenism physician and the father for modern medicine.

2. In philosophy even though he was the founder of Islamic philosophy he is known as Peripatetic philosopher. His writings in this field-as those in medicine which set off an evolution-was the start of eastern philosophy known as Hekmat Motealeiye Sadraayie.

3. Even though in history he is not known to be Gnostic, from what was printed in the eight and ninth Namt of Esharat and Tanbihat, he can be considered a great Gnostic. This has been mentioned by one of his serious critics, Fakhra Razi, who was first very strict in his opinion about Avicenna but then chose to be silent and bowed to Avicenna's greatness. At this point we will discuss few important points concerning his three dimensional character.

Some Highlights from Avicenna's Medicine

Based on the research presented by two recent physicians, Boroumand, Nephrologists and Barimanie, Neurologist, on Avicenna's work in their individual field of study which was presented in 1993 in the History of Medical Sciences in Iran and Islam Conference, they concluded that even though in his time there were no knowledge of today's technology, but his diagnoses about the breakdown of urine and epilepsy were amazingly accurate.

In the field of medical sciences which is evident in the books of Al Qanon (The Canon) and Tanzim Fosoul (Law and coordination of seasons) Avicenna paid a lot of attention to experimentation. Accurate analyses and assimilations were done and he did his best with Galenism medicine to search for the truth. With the chapter on dissection and anatomy in the first book of The Canon, we can say had performed dissection with certainty.

In the chapter of signs of illness, especially in pulse indication, different types of disease,¹² different sorts of fever and their foundations were established through experimental science.

In the arena of medical sciences and remedies in general and area of expertise of patient's pathology, etiology, and the subject of cures and remedies, Avicenna looks at pharmacology from the same point of view as pharmaceutical dynamic drugs as well as hygienic and preventive measures with keen attention.

Even though he was an experimental scientist himself, he did not feel that experimentation is adequate to provide a complete knowledge of human entity and believed that this should be done along with philosophy and mysticism; hence, he started to explore them and come up with a more comprehensive perspective.

Avicenna's Philosophy

In his last philosophical vestige work known as "Esharat and Tanbihat" in eight Namt, he talks about different category of contentment and says; 'some people think that pleasure is only in achieving materialistic and earthly pleasures by releasing themselves with instantaneous pleasures'. In this chapter after making this comment, Avicenna tries to look at this issue from different perspectives and he scrutinizes it from every possible angle and he provides evidence that spiritual and mental pleasures are far more rewarding and intensive than those of physical pleasures. Scientists and scholars today have proposed four alternatives for mankind in attaining the highest level of intellectuality, deeds and science:

- 1- Peripatetic Philosophical Method
- 2- Spiritual insight Method
- 3- Communicative Method
- 4- Gnostic, Sufism Method

Avicenna in his book of Shafaa (Cure) by way of logic and reasoning has been consistent, but he himself admits that with logical reasoning in different aspect such as; physical ascension and physical resurrection he is feeble to explain and for these issues we have to look towards divinity. In the eight and ninth Namt of Esharat and Tanbihat he has enlightened and vindicated the mechanism of mysticism plus the immense impact that has on human soul and spirit by laying the foundation for visualizing our deeds in the limbo and the life after death.

Avicenna's Mysticism and Conducts

Scholars have described and ranked the power of thought and perception in the order of: 1- Imagination, 2-Hallucination (Vision), 3- Intellect, and 4- Heartfelt.

Imaginary experience is related to childhood period. It is not in harmony with the realities of the world that we live in. Hallucination (Vision) brings about art and technique during adolescence and teenage years. Intellect is responsible for the segregation

between pleasures, wretchedness, beauty and malice of this world. Heartfelt is where we feel and witness the sphere of influence and the enormity of this kingdom which is our universe.

Human natural pursue of development has to be in a way that as he gradually grows up and matures his power of imagination should develop into hallucination (vision), then in to intellect and finally into heartfelt. In other words, hallucination (vision) is the source of art, that can be controlled and guided by intellect then intellect discovers the capability to investigate and witness in order to fully grow and comprehend the world and also to discover and witness revelation in an array of divinity.⁴

Power of imagination and hallucination (vision) are associated with poems, stories and allegory. In order to lead imagination and hallucination (vision) powers towards obsequies intellect, Qoran narrates ways of mysticism where wise men and scholars of conduct have tried to put these issues in a way which is pleasant and rhythmic with prose in poetry and beautiful stories. In the story of Salman and Ebsal which has been pointed out in the ninth Namt of Esharat and Tanbihat, a Corolla (cup) has been described with seven colors of rainbow. The author's point of view in this mythical story is based on evolution in medical sciences paradigm that should be based on models of Bouali's methodology and philosophy, which means health in human and society has to be based on the power of will and theology as the foundation and on physical elements and external forces as secondary factors. Sadly in today's medical treatments human body and the natural surrounding has become the focal point, where intellectual pleasure and spirituality has become a secondary issue or none essential factors. However, scholars are now suggesting Immunology Spirit Psycho Neuron Endocrine as a platform for future.¹¹

In the evolution of medical sciences in the future all three aspects of philosophy, mysticism, and experiment must be considered and implemented together. Based on today's observations, spirit and free will of human has been forgotten or eradicate and it's time for amendment. Unfortunately in Iran there are no inquiries or accomplishment in this filed and once again westerners are following-up on Avicenna's work. The Conference on Self from Soul to Brain in New York Science Academy was an illustration of this claim.⁶ Hopefully, we will not just remember Avicenna as a legendary and historic figure nor just as an honorable national and religious pride, but by

implementing his methodology in our academic and cultural structure we will give the real tribute to him. Finally, as⁹ stated, "a brilliant and troubled man, Avicenna links ancient physicians with modern medicine. His devotion to the search for truth set the standard for all times. The cultures of both East and West are indebted to this great physician and philosopher."

The Need for a New Approach to Medicine

Beginning with the 20th century we can gradually see that once more there is a growing interest in spirituality and its connection to the body. Some might get surprised as how this is possible given all the discoveries and new techniques in medicine such as transplants, cloning, and stem cell which have made significant impacts in medical sciences. However, the grounds for this shift is based on extensive research which has been able to prove that healthy body can only exist in the company of a healthy soul and spirit. No matter how many times we change a broken part or organ by ways of cloning or stem cell technology, if the soul and spirit is not at harmony with the changed part it will disrupt all the repairs and changes. As Newton's laws of physics have evolved and been replaced by quantum physics, it is time for medical sciences to do the same and to reconsider the forgotten which is the soul and spirit. Avicenna's work was based on philosophy and experimental science and thus made a remarkable adjustment in the way we look at medical sciences today.

As reported in Wikipedia (see the site in the references), a 2002 survey of US adults 18 years and older conducted by the National Center for Health Statistics (CDC) and the National Center for Complementary and Alternative Medicine indicated:

- 74.6% had used some form of complementary and alternative medicine (CAM).
- 62.1% had done so within the preceding twelve months.
- 45.2% had in the last twelve months used prayer for health reasons, either through praying for their own health or through others praying for them.
- 54.9% used CAM in conjunction with conventional medicine.
- Most people used CAM to treat and/or prevent musculoskeletal conditions or other conditions associated with chronic or recurring pain.
- "Women were more likely than men to use CAM. The largest sex differential is seen in the use of

mind-body therapies including prayer specifically for health reasons".

- "Except for the groups of therapies that included prayer specifically for health reasons, use of CAM increased as education levels increased".
- The most common CAM therapies used in the US in 2002 were prayer (45.2%), herbalism (18.9%), breathing meditation (11.6%), meditation (7.6%), chiropractic medicine (7.5%), yoga (5.1%), body work (5.0%), diet-based therapy (3.5%), progressive relaxation (3.0%), mega-vitamin therapy (2.8%) and Visualization (2.1%)

Concluding Remarks

Humans are a wonder of creation with very complex systems of being. We need to appreciate all those ways of understanding that help us to have a comprehensive knowledge of this creature. Scholars like Avicenna in the past tried to bring together different aspects and realities of human beings to better describe and face problems especially in medicine. With the advent of scientific revolution, unfortunately the mere attention was given to materialistic aspects and

the spiritual aspects were forgotten with the reasoning that they could not be studied. As such, our views toward the nature of humans were narrowed down missing some major and important aspects of this complex creature.

Fortunately in recent decades there has been a need for attending to spiritual aspects of human beings in treating medical problems. The move has come to be termed "alternative medicine" or "complementary medicine." Avicenna can be considered a forerunner and a prototype in this regard with his (w) holistic view on human beings. He was the founder of the modern medicine, a great philosopher, and a true Gnostic. Through his voluminous writings on these three areas, he was able to depict a comprehensive perspective on human beings that lead to a better understanding and treating.

Now that in recent years there has been an interest in attending to spiritual as well as physical aspects of human beings in treating medical problems, scholars such as Avicenna can provide good models. There is the hope that by attending to subtleties of human nature, we can have a more balanced view toward him and his treating.

Conflict of interest: None declared.

References

- 1 Al Naquib A. Avicenna. *Prospects: the quarterly review of comparative education* 1993;23(1/2):53-69.
- 2 Bratman S. *The Alternative Medicine Sourcebook*. Lowell House, 1997.
- 3 Ernst E. Complementary medicine: common misconceptions. *J R Soc Med* 1995; 88(5):244-7. [7636814]
- 4 Javadi Amoli, A. *An overview of Avicenna's mystical and ethical thoughts*. Tehran: Asra Publication, 1999 (in Persian).
- 5 Modanlou HD. Avicenna and the care of the newborn infant and breastfeeding. Retrieved September 15, 2008 from: <http://www.nature.com/jp/journal/v28/n1/full/7211832a.html>
- 6 Murphy N. *Self from soul to brain*. New York: Academy of Science, 2003.
- 7 Nezelof C, Seemayer TA. The history of pathology: An overview. In I. Damjanov and J. Linder (eds.), *Anderson's Pathology*. 10th ed. St. Louis: Mosby, 1996; pp. 1-11.
- 8 Phillips L. A tribute to Avicenna. Retrieved October 27, 2008 from: <http://www.cybermedic.org/avicenna.htm>
- 9 Smith RD. Avicenna and the Canon of Medicine: a millennial tribute. *West J Med* 1980; 133(4):367-70. [7051568]
- 10 Syed IB. Spiritual dimensions in healing in Islamic medicine. Retrieved September 15, 2008 from: http://healing-from-the-greatest-healer.blogspot.com/2007_11_01_archive.html
- 11 Tabei SZ. A medicine for physicians. Shiraz: University of Medical Sciences Publications, 2001 (in Persian).
- 12 Tabei SZ, Masoumpour MB, Asadollahi R, Sobhani N, Sajjadi SS. Avicenna's viewpoints on fever and its comparison to modern medicine. *Med J Islamic Republic Iran* 2004;18:1.
- 13 Wear A, Geyer-Kordesch J, French R. *Doctors and ethics: The historical setting of professional ethics*. Amsterdam: Rodopi, 1993.
- 14 Wikipedia: Retrieved October 27, 2008 from: http://en.wikipedia.org/wiki/Alternative_medicine
- 15 Wulff HR, Pedersen SA, Rosenberg R. *Philosophy of medicine: An introduction*. Oxford: Blackwell Scientific Publications, 1986.
- 16 Zahoor A, Haq Z. Quotations from famous historians of science. Retrieved October 20, 2008 from: <http://www.cyberistan.org/islamic/Introl1.html>