Medicine – Is It A Technology or A Philosophy?

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ABSTRACT

Medicine can be approached as a technology or a philosophy as along with the scientific aspects, social, cultural and political influences have a significant affect on health. As medicine developed over the years, the main efforts were to reduce ambiguity and uncertainty which however led to reductionist approaches. Cartesian dualism successfully isolated the "mind" from the "body," thereby diminishing the significance of psychological inputs in the maintenance of health. Though Flexner must have intended an appropriate balance in medical education, the scientific aspects of medicine outweighed the social and humanistic aspects of the profession the world over. Technology has allowed the shrinkage of face-to-face discourse between doctors and patients and has weakened the doctor - patient relationship thereby restricting creative thinking. Nowadays, most medical colleges have the limited scope of only transferring knowledge and techniques to students. Medical science has been rendered to a technology, consisting only of drug therapies, surgeries and procedures. Students are in danger of ending up as automatons that can only offer technical assistance to their patients and cannot distinguish between situations, circumstances and other patient peculiarities. Medicine practiced as a technology is far inferior to that practiced as a philosophy. Philosophy must however address all three dimensions in Medicine; epistemological, metaphysical and methodological. Medical doctors are in the unique position of grappling with higher issues of life such as death, knowledge, reason and religion. It is also the doctor's role to help a patient and his loved ones to come to terms with illness and approach it with the right knowledge and attitude. Knowledge of philosophy can counterbalance knowledge of science, and can put healthcare into the right perspective.

Keywords: Medicine, technology, philosophy, uncertainty in medicine, reductionist approaches.

INTRODUCTION

Medicine is both an art and a science as it involves the art of the physician – patient encounter and the scientific basis for the subsequent treatment. In addition to the scientific aspects, social and political influences have a considerable affect on health, and it is impossible to disconnect them.[1] Medicine can be approached as a technology or a philosophy. Doctors can help their patients to maintain their health and know what good health is, what deviation from good health is, the difference between healthy and unhealthy and when to seek health care. Seen as a technology, however, medicine is only about drugs, equipment and procedures. An optimal medical decision is one that integrates information about the patient's clinical state and circumstances, the available research evidence, as well as the patient's values and preferences.[2] A central element in the practice of medicine is uncertainty in the face of which a doctor must still act and not be at a loss. A study of philosophy may help a doctor to live with this uncertainty.[3] Galen, who practiced in Rome in the second century AD, saw himself as both a physician and a philosopher, as he wrote in his treatise titled "The Best Physician is also a philosopher". He states that it was clear to him that whoever is a physician must be altogether a philosopher. He adds that philosophy is necessary for doctors if they are to use the Art of medicine correctly.[4]

Uncertainty in Medicine:

Understanding medical uncertainty and acquiring proper coping strategies has been regarded to be a core clinical competency for medical graduates and trainees.[5] Inability to cope with medical uncertainty may cause distress to physicians and even harm their patients. Medical uncertainty can be due to technical reasons like inadequate scientific data, personal reasons such as an unsatisfactory doctor-patient relationship or conceptual reasons such as difficulty in applying data to real situations.[6]

Probability of risk predicts a possibility of poor outcomes, ambiguity is a result of conflicting information and inadequate evidence and complexity of issues is present due to multiple causal factors and difficulty in interpretation.[5] Quantitative and qualitative techniques of managing uncertainty include shared decision-making, meticulous history-taking and evaluation, exclusion of worrisome diagnosis, ability to critically appraise current literature and establishing trust with patient.[7]

Cartesian dualism:

Developments in medicine over the years have all been aimed at reducing the element of ambiguity and peoples' dependence on religious dogma when it comes to the cure of diseases.[8] René Descartes put forth the argument that the mind and body are two distinct entities. This thought process, quite revolutionary at the time, was much needed to divorce

medicine from religious dogma. However in the long run, this dualistic reasoning has had a far reaching restrictive influence on the field of medicine, on its complete understanding of real health issues, and on developing effective interventions to deal with the same.[9]

By isolating the "mind" from the "body," medical practice diminishes the significance of psychological inputs in the maintenance of health and lays emphasis on objective evidences of disease over information regarding the personal experiences and emotions expressed by patients. Cartesian dualism facilitated the biological reductionism of disease, medical practices that do not necessarily support healing and wellness and also promoted a perfunctory approach to patient care. It has led to disempowering the patient and has discouraged humanistic thought processes that focus on the whole patient.[8]

Flexnerian changes in Medical Education:

In 1910, Flexner made a famous report on the need for a scientific basis of medicine and appropriate changes in medical education. This changed the pattern of education in medical schools of the United States and Canada which, in turn, affected medical education around the world.[10]

Soon, the scientific aspects of medicine outweighed the social and humanistic aspects of the profession much in contrast to the balance that Flexner must have intended. The emphasis on the biomedical and hospital-centred model of the Flexner report has left little room for the social, psychological, and economic dimensions of health and the comprehensive use of health related resources outside the sphere of medicine and its practitioners.

Defining the terms Philosophy and Technology:

Philosophy (Greek meaning "love of wisdom.") uses logical analysis and critical thinking to examine how humans experience and understand their world and their place within it.[11] It involves a rational understanding of the fundamental truths about one's self, the world in which one lives in and the relationships to the world and to each other. Technology (Greek, "art, skill, cunning of hand") is the making, modification, usage, and knowledge of tools, machines, techniques, crafts and systems in order to solve a problem or perform a specific function. It includes technical methods, skills and processes. Medical Technology involves a number of instruments, gadgets and other compliances, techniques and procedures used in health care for the purposes of diagnosis or treatment.

Philosophy and Medicine:

Philosophy uses logical analysis and critical thinking to examine how humans experience and understand their world and their place within it. Philosophy helps us answer fundamental questions about existence, knowledge, values, reason, mind, and language. [12] The methods used comprise enquiry, dialogue, discussion and orderly arrangement of information. In healthcare (both research and practice), philosophical concerns include issues regarding

ethics and to a certain extent the economics and politics surrounding it. Having some basic knowledge and skills in philosophy of medicine may encourage a reasoned, critical, and accepted approach to medicine thereby improving the quality of medical practice.[13]

Philosophy must address three aspects in Medicine; epistemological, metaphysical and methodological dimensions. [14] Epistemology is the study of knowledge and the main concerns of medical epistemology lie in explaining ways in which health-care professionals come to know and use knowledge. Ontology is a metaphysical ideology which includes the study of concepts, classifications, properties and relationships in a particular field of knowledge. Medical ontology involves the study of issues (knowledge, attitudes and skills) existing in the medical world, the relationships binding them and the ties between research and practice. The methodological dimensions of medicine refer to the diagnostic, therapeutic, experimental and palliative approaches in day-to-day medical practice.

Technology and Medicine:

The World Health Organization defines medical technology as the "application of organized knowledge and skills in the form of devices, medicines, vaccines, procedures, and systems developed to solve a health problem and improve quality of lives". [15] This includes drugs, devices, procedures, information and systems used in the healthcare industry. By combining technology and medicine, scientists and doctors alike have been able to overcome enormous barriers through the development of more intricate and accurate technology. However, technology has created a relationship that is less face-to-face between doctors and patients thereby weakening the doctor - patient relationship. Technology may divert the doctor's attention away from his or her patient and restrict creative thinking. As technology has improved, it has led to longer life spans, but not a consistent quality of that life. [16] The advancement of medical technology by itself is not an issue but rather a lack of a basic framework to guide doctors in its ethical use. The ethical issues on medical technology or innovations are profound and their controversies are enormous. [17] Doctors are called on to deal with many states of affairs. Not all of them are diseases. Some are physiological states like pregnancy. Injuries are not diseases and likewise disabilities. Performing an abortion or giving contraceptives does not come under disease management. [18]

'Keeping people healthy' or 'curing disease':

A good way of looking at medical practice is by asking ourselves if we are involved in 'Keeping people healthy' or 'curing disease'. Medicine practiced as a technology is far inferior to that practiced as a philosophy or a way of life. The practice of medicine does not imply just knowing a lot of diseases, their causes, treatment and procedures. Medicine as a philosophy looks at alleviating human suffering. When this is taken as a goal, it involves understanding not just the disease factors but a plethora of other factors entering the realms of

sociology, philosophy and even spirituality. Philosophy of medicine should include philosophical reflection on any matter considered to belong to medicine.

Medicine is not a linear science and we cannot reduce it to simple equations. [19] The same line of treatment to different people with similar illnesses can lead to various outcomes, both positive and negative, underlining the inherent variability between individuals. The letter Rx on a doctor's prescription means "in faith". When knowledge was poor in medicine, physicians advised their patients to take their medicine in faith (faith in God / faith in their doctor). Even today with a whole lot of knowledge available to us, we are still not clear about many issues. For example, in an age-old disease like leprosy, we are still not sure about how the disease enters a new host and why it affects some and not others. We also do not clearly understand why the disease takes 10 to 15 years of latency before suddenly appearing as skin patches.

Human life is precious and issues regarding the ethics involved in topics such as abortion and euthanasia are frequently debated. Medical doctors are usually busy dedicating their efforts into prolonging the lives of their patients. The success of doctors' medical intervention lies in the capacity to mainly save lives and much research in medical science and practice goes into it. Clinical decisions by and large do not take into consideration the quality of the extended life. This reductionist scientific attitude is consistent with the traditional commitment of the medical profession to save lives wherever possible. [20] The reverse is also true that most doctors find themselves helpless when it becomes inevitable that their patient is dying. Preparing a patient to face death and providing necessary comfort and solace to the patient and his dear ones is also a part of the doctor's responsibilities.

Holism in Medicine:

When medicine is taught from a technical angle, we can only take into consideration certain facts and figures, certain technical procedures and protocols. Currently, medicine that is taught in most medical colleges in India has a limited scope of only transferring the above to students. Students are in danger of ending up as automatons that can only offer technical assistance to their patients and cannot distinguish between situations, circumstances and other patient peculiarities. We are rendering medical science to a simple technology and thereby giving play to reductionist approaches like drug therapies, surgeries and procedures.

Medicine is following a philosophy of 'reductionism' which involves breaking down a complex process into its component parts to enable better understanding and management. Aristotle stated that "the whole is more than the sum of its parts". In medicine this would mean that the disease is more than the sum of deranged parameters or manifestations. True 'holism' is looking at the patient and disease as a whole rather than focusing on interactions at cellular levels. [21]

Comprehensiveness in healthcare:

Medicine is not just a curative science. It also has promotive, preventive and rehabilitative aspects to it. Medical practice today only glamorizes the curative aspect and pays scant attention to the other aspects which are perhaps more important. For example, blocks in the cardiac vessels can be halted or even reversed by following preventive and promotive measures like changes in lifestyle and reducing stress levels. However, we as a society do not ascribe much relevance to these facts. Rather we are encouraging invasive procedures like angioplasty and putting the perpetrators of these temporary but financially rewarding procedures on a pedestal. Even young people around 40 years of age, without being given an option of following preventive measures, are encouraged to have a stent or two put in. The patient is not empowered to take control over his life. Instead, he becomes a slave to the health care industry for life.

The practice of medicine raises questions beyond the scope of medicine, questions to which only philosophy may provide answers because they fall within its scope. Physicians are daily confronted with questions in such philosophical areas like metaphysics, epistemology, ethics, and logic. [22] Diseases, especially the chronic and disabling ones, not only cause extreme suffering but also affect the patient's dignity and independence. There is a need for the health care system to inculcate methods and approaches which protect values such as human dignity, subjectivity and free will. [23] The "Art of Medicine" which lasted for many centuries gave way to the "Science of Medicine" which over the past few decades has become blended with the "Business of Medicine" thereby giving rise to systems which are oriented more to "disease care" motivated mainly by profit. [24]

CONCLUSION:

The principles of social accountability pertaining to medical colleges and hospitals regarding health care systems, models of health service delivery or research, emphasize humanistic qualities in addition to equity, relevance, and cost-effectiveness. [25] Doctors are in the unique position of grappling with higher issues of life such as death, knowledge, reason and religion. It is also the doctor's role to help a patient and his loved ones to come to terms with illness and approach it with the right knowledge and attitude. Knowledge of philosophy can counterbalance knowledge of science, and can put it all into perspective.There is a need to have a philosophical framework onto which doctors can hang their medical knowledge to provide a logical context. [26] Medical philosophy and its principles pertaining to life and health must move from a hypothetical domain to an applicable day to day real life clinical practice. Such a clinical practice is beneficial to the practitioner, the patient and society at large.[23] A culture that acknowledges medical uncertainty must be brought back both in the

medical fraternity and the public. Physicians may be encouraged and supported to integrate intuition and logic in their practices to grapple with medical uncertainty. [5] The role of the physician is not just to attend and treat his patients but rather a passionate concern for their feelings and welfare. [24]

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