INTRODUCTION

Providing comprehensive health coverage to a large population scattered in cities and rural areas is a challenge facing many countries. Many middle-income countries – such as India – have also a rich and varied heritage in health-care delivery to its population. India has officially recognized the availability of diverse systems such as Ayurveda, Yoga, Unani, Siddha, and Homeopathy and set up a ministry for research and application of these practices with the acronym AYUSH. Health care has two aspects, self-care and provided care. With self-care as focus, it is possible to shift the emphasis from health restoration to health promotion. The first line of care should thus be self-care and prevention. This is possible since up to 80% of health disruptions are related to lifestyle changes coupled with improper diet and lack of exercise. The European Prospective Investigation into Cancer study of 23,000 individuals showed changes in lifestyle could lead to prevention and reduction in a number of diabetes, heart attacks, strokes, and cancers. Even with genetic predispositions, it is possible to avoid many disorders through above practices, as research in epigenetics has shown.

While it is possible to make health care more affordable both to the governments and to the public, a recent mantra is limiting the role of many traditional medicines; the mantra is evidence-based medicine. There are too many issues involved in this seemingly innocuous requirement, and discussions have pointed out allopathic medicine as having undue opposition to ancient traditions. There is no doubt that emotional and scientific issues are involved in this. We need to seek answers at many levels: traditional wisdom and practices, accessibility, acceptance by rural population, low cost involved, and no side effects.

History of science is an interesting study since it provides us with knowledge of workings of ancient sciences and modern sciences. Sciences in the West, especially physical sciences, have undergone phenomenal changes in the last 100 years. Psychology and medical sciences are lagging behind and to reduce the philosophical distance between biology and physics, new terms are introduced in biological science such as consciousness, quantum medicine, and scalar wave theory. These terms are understood in biology in a different way from its use in physics. Hence, we see a schism between biology and physics in this world view. Life sciences have not been able to define “life” and thus are not able to establish firmly as “science!”

In the microscopic world of quanta, we use statistics to look at the complex results of an experiment that may take years to design and to perform. The fundamental particles are no longer fundamental; they are very elusive being “alive” only for a very, very short time (such as $10^{-12}$ sec or less!). In macroscopic medical sciences also, we use statistics while trials last a few weeks to a few years. Biophysics that seems to underlie medical (statistical) sciences is itself a gross manifestation of an invisible and for now, unchartered sea of electron transport within and between molecules.[1] Keeping these in mind, let us look at models in physics and how paradigm changes to include (and, sometimes to exclude) older patterns of thought.

PARADIGM SHIFT IN SCIENCES

Till the start of 20th century, physics was Newtonian. Motion of stars is well understood, atoms are similar to billiard balls, hitting each other and exchange energy in the process. This world view was entrenched in the minds of great scientists of that era; one famous physicist seems to have dissuaded students from taking physics for their graduate studies since there is nothing much to be done; “we have done it all!” Fortunately, for Physics, some very simple, yet remarkable experiments started to throw the proverbial spanner in the works. The famous double-slit experiment showed the dual nature of light – behaving both as a particle and as a wave. The results gave rise to quantum nature of particles; however, this did not improve our understanding of nature; it demolished the earlier view of the world at the microscopic level and provided an entirely new view of the universe. It is not one or the other; it simply offered a particular view on the fundamental nature of the universe. Will the current world view change radically? Perhaps it will, the more we probe nature with our tools – which gets more sophisticated as time passes – the more complex the universe seems to be. This paradigm shift in physics has also impacted other sciences in many ways.

The most abiding characteristic of a paradigm shift seems to be incommensurability; this is an inability of practitioners of two competing paradigms to agree on the principle components for resolution; they do not agree on the standards of such resolution; and finally, “the third and most fundamental aspect of the incommensurability (is that) proponents of competing paradigms practice their trades in different worlds.”[16] The different worlds need not be in different areas of science; it could be within medical science itself but works from entirely different presuppositions. The language used could also be
divergent; for example, an allopathic medical doctor’s use of the term consciousnesses could be very different from its use by a traditional practitioner of Ayurveda.

**HOLISTIC LINGUA**

In the above presentation, one important aspect that seems to be insurmountable is the difference in the world view of the two sciences and the language they operate with. Life is a process not well defined in allopathic model (AM), whereas it is well defined in Ayurveda, while its definition may not be acceptable to AM. In Ayurveda, we postulate atman or soul as the activating and energizing principle that gives matter the characteristic of intelligence and life. This vitalistic element pervades most – if not all – holistic therapies. In AMs view, all biochemical processes work in synergy to promote life as we understand it. However, whatever biochemistry we may concoct in a bottle will not give the characteristics of life processes. Further, as mentioned earlier, all biochemistry is driven by electron transport, and again this aspect is not considered in postulating mechanism in AM. Thus, AM is incomplete, it cannot define life and actually, it does not define death either (as seen in numerous reports of near-death experiences). Hence, AM is incomplete in many ways. While its trauma care is certainly vital for sustaining life and in improving the quality of life, there are serious deficiencies in AM. It becomes important to look into other healing modalities to gain useful ideas regarding life and death.

In many holistic areas, it is postulated that energy is the basis of life processes; this energy could be primordial and ever present. Its transformation in the world gives rise to matter as we see in its myriad forms. This energy could be physical (such as electromagnetic) or nonphysical and hence nonmeasurable. For example, limb regeneration belongs to the former category, whereas prayer belongs to the latter. Thus, a model should cater to both of these, accommodating both known and unknown fields. It is not unusual we cater to unknown fields; when someone observed a proverbial apple falling to the ground from a tree, it was thought a force could be involved in this interaction, and it took many years to sort out mathematical equations to understand the phenomena completely. Thus, we should not be selective by excluding “anomalies” while looking for a universal model.

**FROM MODEL TO MECHANISM**

Model alone is not enough in accepting a therapy to be effective; a clinical improvement along with possible mechanism is required. Enunciating a mechanism is a tedious and detailed process; however, this is required if the model should be adopted and improved on. Further, at least some aspects of the model should be measurable; if every component of a model is beyond measurement capacity – either because of its minuteness or its nonphysical nature – then the purpose of the model is defeated. For example, we model bone growth through postulating a subtle electrical field in the proximity of the growth. It may be too small or time bound thus making measurements difficult. The last one, namely time dependence, is an aspect of holistic health that is not understood. For example, we do not know how long it takes prayer to activate the physiology in a person: instantaneous, after a few hours or perhaps after a day or two. Hence, measuring its effects could be difficult since we have many other biological processes “interfering” with the effect of prayer, and hence, its isolation and study are not easy.

**CONCLUSION**

It is time to look away from either-or outlook; it should be all inclusive. In other words, we should not try to decide either modern or ancient paradigm is correct; we should accept and use the paradigm that is relevant to the theme at hand. Even if it seems unacceptable, the outcome measures are more important than under which paradigm the system is supposed to work. Prana or Qi may not be measurable; however, if the clinical outcome is successful, it is necessary to accept the concept of prana and hope that we could measure it at some point in time.

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