• Thought Leadership Articles
• Integrative medicine for chronic diseases
• Healthcare as human right
• Traditional medicine and genomics
• Studies on Brahma rasayana
• Standards of reporting Ayurvedic clinical trials
• The inter-university initiative CAPTURED
Conceptual framework for new models of integrative medicine

Darshan Shankar
Institute of Ayurveda and Integrative Medicine, Bangalore, India

WHY INTEGRATIVE MEDICINE?

There is evidence the world over of growing public demand for making available healthcare choices, based upon best practices, drawn from different healthcare systems.[1] The demand for pluralism in healthcare appears to be based on a realistic assessment of the inadequacy of any single system of healthcare to solve all contemporary health needs.[2] It is probably this assessment that is responsible for the dramatic growth of the Complementary and Alternative Medicine (CAM) movement, and the nascent evolution of different models of Integrative Medicine (IM) in civil society.

Governments and regulatory bodies also appear to have accepted the imperative for pluralistic approaches to healthcare with the caveat that all new, potentially useful healthcare interventions, must establish their safety, quality and efficacy.[3] An objective manifestation of the acceptance of medical pluralism is reflected in the creation of government-sponsored national research institutes for CAM in the United States, and in Europe (Norway, Sweden) and in the introduction of modules on IM in several medical schools in many countries, spanning all the regions of the world.

RATIONALE FOR DIFFERENT MODELS FOR INTEGRATIVE MEDICINE

The pivotal medical science around which integrativeness and complementarity are sought to be developed is bound to vary in different regions of the world. Even within a single country, different models for Integrative Medicine may spring up. Such models will be influenced by the cultural and intellectual roots and the contemporary history of healthcare in the particular society in which integrative medicine is being explored. Several diverse models of IM may indeed be relevant in different social settings, because they can address different dimensions and aspects of healthcare. Therefore it would be a limited thought process, which offers support to only one, uniform, model of Integrative Medicine.

In the Indian context, given over three millennia of positive experience and an unbroken evolution of Ayurveda, it certainly makes cultural sense to develop an integrative medical system pivoted on Ayurveda (‘pivot’ implies that the principal health management will be based on the knowledge system acting as the pivot). However, integrative models in India are also likely to evolve which use allopathy as the pivot, because the allopathic system during the last century has become the mainstream system of healthcare in India. Both these models of IM may have relevance for India’s healthcare needs.

Policy-makers need to create space and a level-playing field in terms of legal provisions (rational limits for cross-medical practice), financial support (for education and research on IM) and insurance cover, for different IM models so as to enable them to evolve and establish themselves.

OUTLINE OF THE CONCEPTUAL FRAMEWORK OF AN INDIAN MODEL

An Indian model for integrative medicine with an Ayurvedic pivot will be a pioneering venture. This pivot is likely to be inspired by an appreciation of the sophistication of Ayurvedic theory and clinical practice rather than the mere fact of Ayurveda being Indian. The Ayurvedic health knowledge system has over the centuries generated an ocean of knowledge. This is evident in its sophisticated theories of health and disease,[4] the enormous literature[5] on natural product formulations and principles of drug design through which new drugs may be created, the enumeration of thousands of clinical symptoms,[6] and a taxonomy which can enable any new clinical symptom[7] to be described, the concepts related to human physiology and the structure and functions of the mind.
It is very important to appreciate and note the fact that this ocean of sophisticated and dynamic knowledge was not created with the aid of the western biological, medical, chemical and physical sciences. Given the highly productive and generative track record of Ayurveda, it is important for India to conserve and revitalize the Ayurvedic knowledge system, and develop it further by exploring its organic relationship with other contemporary health sciences.

In principle, Ayurveda lends itself to an integrative approach. Historically it has been progressive, dynamic and inclusive. Charaka, the sage-physician, spells out this outlook aptly in Carak Samhita Vimanstanth 8/14 ‘The science of life shall never attain finality. Therefore, humility and relentless industry should characterize your endeavor and approach to knowledge. The entire world consists of teachers for the wise. Therefore, knowledge, conducive to health, longevity, fame and excellence, coming even from an unfamiliar source, should be received, assimilated and utilized with earnestness’.

An obvious knowledge partner for Ayurveda in its integrative pursuit is biomedical science, but partnerships should also be explored with other health sciences. It is, however, important to appreciate that while Ayurveda and Western biomedicine share the same spirit of earnest inquiry, their perspectives on Nature are different. Their philosophy, logic and medical theories are distinct. Sankhya and logical positivism shape their differing world-views. Nyaya and Vaisheshika, as against Aristotelian logic, guide their logical propositions and Panchamahabhuta siddhanta, Tridosha vichar and cellular and molecular biology govern their respective medical theories. Due to these epistemological differences, the nature of knowledge discovered by Ayurveda is systemic and holistic, whereas knowledge in the biomedical sciences is structural and reductionist.

**LINKING TWO DISPARATE EPISTEMOLOGIES: THE CHALLENGES AND REWARDS**

The question whether Ayurveda and Biomedical Sciences can be linked is equivalent to asking the question whether the whole and its parts can be related. Or the question, whether fields and the several structures contained therein are associated.

It is obvious that the whole and part are related, but the key point to be understood is that the relationship is not one to one because the whole is not equal to the part, nor does the sum of parts add up to remake the whole. One should therefore not be seeking equivalence in developing the relationship between Ayurveda and Western sciences, otherwise one will either reduce the whole to a part, or assume that the part represents the whole, and thus develop a distorted understanding.

Collaboration between Ayurveda and Biomedical sciences can be very fruitful. There are certain incredible details of parts that science uncovers that can enrich the understanding of the whole, and, similarly, there are new perceptions, insights that are revealed in a holistic view that can fundamentally alter the partial view.

At a practical level, one can identify several areas for exploring integrative approaches pivoted around Ayurveda, viz;

1. Integrative approaches for documenting clinical history,
2. Integrative physical and mental examination protocols,
3. Design of new investigations to generate transdisciplinary evidence,
4. Interpretation of diagnostic reports,
5. Integrative treatment strategies,
6. New outcome parameters and their measurement,
7. Preventive healthcare strategies,
8. Research into metabolic and immunological implications of Ayurvedic detoxification procedures (panchakarma),
9. New designs for transdisciplinary pharmacological studies,
10. Design of statistically tenable whole system clinical trials,
11. Development of innovative educational modules on Ayurveda and Integrative Medicine.

**CONCLUSIONS**

It must be recognized that, at this juncture, the idea of integrative medicine pivoted on Ayurveda is a nascent and evolving concept. It is quite different from the notion of integrated medicine, which implies a closure. The integrative approach has a creative and exploratory intent, wherein the pivotal science is seeking tenable relationships without sacrificing its own basic integrity. It implies an extremely serious endeavor to establish foundational, theoretical, experimental and functional relationships between Ayurveda, biomedical sciences and other health sciences. Indicators of its success will be enhanced quality of healthcare, to the community, at the functional level and improved cross-cultural understanding of healthcare at the foundational and theoretical level. This is indeed a complex and challenging task, compounded because of its transdisciplinary nature. It is a task that is required to be sustained through creative exploration for at least a century ahead.

J-AIM is a timely introduction in a world that is seeking more healthcare options that are safe, effective and affordable. It
Shankar: Conceptual framework for new models

is expected to add value to the decision making of policy makers, the practice of sensitive physicians, the horizons of researchers and the perspectives of intelligent lay persons. It will need thoughtful contributions from Ayurvedic physicians, scholars, scientists, historians, philosophers and anthropologists.

REFERENCES

1. Bodeker G, Ong CK, Burford, Grundy C, Shein K, editors. World Health Organization Global Atlas on Traditional and Complementary Medicine. Geneva: World Health Organization; 2005.
2. Annual Report on Dept of AYUSH, Planning Commission, Govt. of India; 2008.
3. Shankar D, Unnikrishnan, P. M., Venkatasubramanian, P. Need to develop inter-cultural standards for quality, safety and efficacy of traditional Indian systems of medicine. Current Science. 2007;92(11):1499-505.
4. Valiathan MS. Towards Ayurvedic Biology, A decadal vision document. Bangalore: Indian Academy of Sciences; 2006.
5. Wujastyk D. Book review: G. Jan Meulenbeld, A History of Indian Medical Literature. Bulletin of the School of African and Oriental Studies. 2004;67(3):404-7.
6. Srikantha Murthy KR, ed. Madhav Nidan. Varanasi: Chaukhamba Orientalia 2007.
7. Shankar D, Unnikrishnan, P. M., ed. Challenging the Indian Medical Heritage. New Delhi: Center for Environment Education, Foundation Books 2004.

Source of Support: Nil, Conflict of Interest: None declared.