

# Ayurveda and integrative medicine: Riding a tiger

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## INTRODUCTION

The global crisis in health care is deepening. For the majority, affordable quality health care seems like a distant dream. Healthcare systems need to understand the complex interplay of biology, behavior, socioeconomic and environmental factors that shape health. These factors cannot be considered in isolation from each other. Planning effective treatment of disease requires addressing them all together, fully and integratively.

The pharmaceutical industry is facing a discovery challenge and innovation deficit. The average cost and time of discovering, developing and launching a new drug is increasing without corresponding increase in the number of novel drugs in the pipeline. Societal expectations of drug safety and efficacy are rising, while R and D productivity in the pharmaceutical industry is falling. Typical diseases of the poor are being unkindly neglected. Against this background, Ayurveda is hoping to offer a new route to healthy lifestyle treatments as also to the discovery, development and delivery of new drugs with better safety and efficacy at significantly reduced prices.<sup>[1]</sup> Several related non-drug approaches such as lifestyle modifications, dietary adjustments, breathing exercises, meditation, Yoga and other simple and affordable solutions are also important. Therefore, there is a renewed interest in complementary medicine leading to further evidence-based research to gain wider acceptance in the larger interest of the public.<sup>[2]</sup>

Traditional, complementary and alternative medicine (CAM) constitutes a genre of healthcare practices or services bound together as a class by means of reductio-ad-absurdum logic derived principally from their absence from the mainframe of Modern Medicine (MM) also known as biomedicine or allopathy. Modern medicine, which is based on Aristotelian

logic, adopted analytical reductionist-scientific rigor to receive global acceptance. Most of the practices under CAM remain popular; however, these could barely cross the threshold of geographical and cultural locality. In this light, 'integrative' systems approaches, which take the best of what is available from both perspectives, without bringing hierarchies or even intentions to undermine any, should be more successful in achieving affordable global healthcare solutions.<sup>[3]</sup>

## AYURVEDA

Ayurveda is one of the oldest extant health systems in the world with wide acceptance among large segments of the population in South Asia, especially in India. The logic, theoretical foundations and epistemology of Ayurveda are based on the six darsanas, mainly the Samkhya and Nyaya-Vaisheshika systems of natural philosophy. Ayurveda's unique, humane, personalized and holistic approach considers body, mind and spirit along with their relationships with nature. While it receives acceptance and support from the general public, due appreciation from the global scientific and medical community is still to come.<sup>[4]</sup> Historically, Ayurveda has been a holistic, inclusive, progressive and continuously evolving knowledge system with universal attributes. The integrative approach to health care and cure has been the basic matrix of Ayurveda practice.<sup>[5]</sup>

## INTEGRATIVE MEDICINE

The integrative medicine (IM) approach recently re-emerged with the hope of providing an affordable practical resolution to the global healthcare crisis. The IM consortium consisting of several academic health centers including Arizona, Duke, Harvard, Johns Hopkins, UCLA and the Mayo Clinic in the US has strongly advocated it as a vital part of the new healthcare system in the best interest of patients and public.<sup>[6]</sup> Many countries like Norway (Tromsø), Sweden (Karolinska), Australia, China and also countries in the Asian, African, European and Latin American regions have IM initiatives. Generally, IM involves the interplay between various systems of medicine and therapies including allopathy and CAM.

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As a scientific platform, J-AIM's focus will be more on promoting innovative, efficient, evidence-based health sciences, affordable treatments, prevention of disease, wellness, personalized and patient-centered care.

## LEARNING FROM PAST

China has successfully integrated practices from both traditional and modern medicine through a bottom-up approach. Medical students in China take mandatory courses in both Western and traditional medicine, and actively implement their knowledge in hospitals and teaching clinics. As a result, Chinese physicians are familiar with the strengths and weaknesses of both medical systems and can choose the right combination to maximize the positive effects. In India, pioneering institutes like Banaras Hindu University have adopted integration of modern medicine super-specialties with traditional practices such as Ayurveda and Yoga. Similarly, specialized Universities for Yoga at Munger in Bihar and SVYASA in Bangalore have unique integrative models of practice and biomedical research. Universities and centers of excellence for Ayurveda such as those at Jamnagar, Jaipur, Coimbatore and Kottakal are trying to maintain the purity of Ayurveda practice, while being open to modern research. However, during the process of integration there is a need for development and implementation of appropriate methodologies and standards of traditional practices.<sup>[7]</sup>

Too often contemporary research has been more oriented towards basic science methodologies. In the race to create scientific data for an evidence base, scientists need to be more careful when reporting results of efficacy, usefulness or advantages of traditional medicine. Translation of Ayurvedic concepts into modern terminologies is another area of great concern. For instance, Vata is not air, Pitta is not fire and Bhasma is not oxide - they have much deeper scientific meanings. Unless scientists understand these concepts correctly and comprehensively, any attempt at validation may be unscientific as well as counter-productive and detrimental. In the past, such ill-designed scientific attempts have rarely led to any meaningful advancement of knowledge. Rather, they have seriously damaged Ayurveda's reputation.<sup>[8]</sup>

## THE IMPACT

Two broad consequences of such attempts have been observed. First, basic scientists, pharmacists, pharmacologists, and clinicians have considered Ayurveda only as a source of new materials for study using modern tools and technologies. For instance, superficial studies on botanical extracts showing antioxidant, anti-inflammatory,

antimicrobial, and such other activities have not in reality contributed greatly to new knowledge except in a few rare cases. Similarly, attempts at activity-directed fractionations, isolation of active ingredients and structure-activity relationship studies have had very limited success. If results of such ill-designed studies have not matched the traditional claims, it has been more due to inappropriate approaches or methods. The second consequence is on the part of the Ayurvedic community. While in the West, allopathy was being transmuted into modern medicine by adopting emergent basic sciences. In the East, Ayurveda stagnated during that challenging time. This adversely affected its practice and education system in India leading to negative impact on confidence, particularly among the young, Budding Vaidyas, under various pressures, including economic ones, embraced the so-called 'integrated' practice mostly consisting of allopathic medicine.

The Indian education system also had a tough time trying to convince the scientific community about the value of protecting the foundations and basic principles of Ayurveda. At the same time, the number of Ayurveda colleges in India increased massively both at undergraduate and post graduate levels. The quality of research in this new breed of institution has remained far from what is desirable or acceptable. Even the quality of research and education leading to MD and PhD degrees in Ayurveda has become a great concern.

## THE FUTURE PERSPECTIVE

Under these circumstances, it is not surprising that the fraternity of Ayurveda scholars has become cautious. The true success and test of the new, 'integrative', approach will lie in its ability to recognize, respect and maintain the respective identities, philosophies, foundations, methodologies and strengths of all systems. J-AIM firmly supports the policy of ensuring that the required scientific rigor is achieved without compromising the foundations of traditional practices and knowledge. Indeed it believes that it is crucial to do so.

Such an 'integrative' exercise is extremely complex and challenging - rather like 'riding a tiger'. There is a risk of losing identity and getting lost or carried away, as also equally, there is a danger of getting swamped. We do hope that, in this journey with J-AIM, rather than a tiger-ride it will become an elephant-ride to raise the vision, widen the horizons and enhance our knowledge to the ultimate benefit of humanity.

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