

Integrating Ayurveda with Modern Medicine for Enhanced Patient Care

An Analysis of Realities

Abstract

Modern or Western medicine is often the first-line healthcare option due to a strong evidence base, a scientific, systematic approach, and well-defined generalizability of therapies to certain populations. However, this disease-focused model has several limitations, such as no cure for all diseases and the high cost of care. On the other hand, Ayurveda, an ancient system of medicine originating in India, has a holistic approach that emphasizes prevention and lifestyle modification, offers a low-cost model, encourages patient empowerment, and promises significant benefits for generalized healthcare. The integration of the two systems can lead to better patient care. However, Ayurveda also has limitations, and the integration with modern medicine faces barriers such as a lack of rigorous scientific research, issues of standardization and quality control, regulatory hurdles, cultural differences or prejudices, and a paucity of trained practitioners in the West. To overcome these barriers, this paper proposes strategies such as promoting rigorous research, developing stringent standards for Ayurvedic practices and products, regulatory reforms, education and training, and promoting integrative medicine. These strategies aim to bring together the best of both worlds for enhanced patient care.

Keywords: Ayurveda, modern medicine, integrative medicine, patient care, healthcare, chronic diseases.

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Introduction

As the global burden of disease continues to evolve, healthcare providers are struggling with the need for comprehensive, holistic, and patient-centred approaches to care. To address this need, there is a growing interest in traditional medical systems among patients and healthcare providers.[1]. Among these traditional systems, Ayurveda stands out due to its unique philosophy, preventive orientation, and emphasis on lifestyle interventions. [2]

Ayurveda is based on a holistic understanding of health and illness, viewing them as the result of the complex interplay of physical, psychological, spiritual, and environmental factors. Its emphasis on prevention, health promotion, and person-centred care aligns closely with the contemporary understanding of healthcare, where the focus has shifted from disease management to health promotion and disease prevention.[3]

The global healthcare landscape has also seen a rising burden of chronic non-communicable diseases (NCDs), which present a long-term challenge to patients and healthcare systems. Ayurveda's focus on lifestyle interventions, personalised treatment, and promoting mental, physical, and spiritual well-being make it a potentially effective approach for managing these chronic conditions.[4]

However, Ayurveda and modern medicine have evolved mainly as parallel systems, each with strengths and weaknesses. With its evidence-based approach, modern medicine has made enormous strides in managing acute illnesses and extending lifespan. However, it often falls short when dealing with chronic diseases and promoting overall well-being. On the other hand, while Ayurveda excels at prevention and lifestyle modification, it has been criticised for a lack of rigorous scientific validation and standardisation.[5]

In light of these strengths and weaknesses, it is increasingly recognised that integrating Ayurveda and modern medicine could lead to a

more comprehensive and effective healthcare system.[1] This review will delve into the potential benefits of such integration, the barriers that stand in their way, and strategies for overcoming these barriers, to promote a healthcare system that brings together the best of both worlds for enhanced patient care. [6]

Benefits of Integration

Agreement of approaches between the two systems or similarities has many benefits, although modern medicine was late to adopt this. Ideas about Ayurveda were taken to Western medicine by stalwart physicians and surgeons in India during the Empire working in the Indian Medical Service - for example, Frayrer, McLeod, Rodgers, and Green Armytage. In India, pioneering institutes like Banaras Hindu University have adopted the integration of modern medicine super-specialties with traditional practices such as Ayurveda and Yoga. Similarly, specialised Universities have unique integrative models of practice and biomedical research. However, during the process of integration, there is a need for the development and implementation of appropriate methodologies and standards of traditional practices.[2]

Holistic Care: Integrating Ayurveda with modern medicine opens the door to a more holistic approach to patient care. Ayurveda emphasises the interconnectedness of health's physical, psychological, and spiritual aspects, offering a comprehensive approach often lacking in the reductionist perspective of modern medicine [4]. This perspective advocates that diseases do not occur in isolation and that the entire body must be treated rather than just the affected part. It considers not just the symptoms but the underlying causes, the patient's mental health, environment, and lifestyle. It can be argued that the implementation of clinical medicine is not entirely reductionist but the science of clinical medicine is, as is super specialisation. So there is a dichotomy here, and the emerging holistic approach to modern medicine is far from being a reductionist. That is gaining importance. Modern

medicine has crossed many boundaries and has evolved. It is also not unique to Ayurveda and also exists in the Arabic/Hakimi and Yunani perspectives as well. By incorporating this holistic understanding of health into modern medical practices, healthcare providers can deliver more comprehensive care that considers all factors contributing to a patient's health.

Prevention and Lifestyle Modification: Chronic diseases, such as diabetes, hypertension, and obesity, are among the leading causes of death worldwide [7]. These conditions often require long-term management and lifestyle modification, areas in which Ayurveda excels. Ayurveda's emphasis on healthy eating, regular exercise, adequate sleep, and stress management aligns closely with the lifestyle modifications recommended for chronic disease management in modern medicine [8]. By integrating these principles, healthcare providers can offer more effective preventive care and chronic disease management, potentially reducing the morbidity and mortality associated with these conditions.

Cost-Effectiveness: Integrating Ayurveda and modern medicine could lead to significant cost savings. Ayurveda, with its focus on lifestyle interventions and the use of naturally occurring substances, could offer low-cost treatment alternatives for various health conditions [9]. Furthermore, its emphasis on prevention could reduce the need for expensive treatments and hospitalisations. A study on the treatment of rheumatoid arthritis, for instance, found that Ayurveda could potentially provide a cost-effective alternative to standard allopathic (western medicine) treatment [10]. More research is needed in this area, but the potential for cost savings is clear.

Empowerment: Ayurveda promotes self-care and empowers individuals to play an active role in their health. Its emphasis on lifestyle modifications and personalised treatment can encourage patients to control their health more, leading to improved health outcomes [11]. Modern medicine has historically emphasised a

passive role for the patient, although this has changed in the last decades, and integrating Ayurvedic principles could lead to more empowered, engaged patients.

Global Health Challenges: Emerging global health challenges, such as antimicrobial resistance due to the overuse of antibiotics and the rising burden of mental health disorders, pose significant threats to global health [12]. Ayurveda's use of a wide range of plant-based medicines could offer alternatives in the face of rising antimicrobial resistance. Furthermore, its holistic approach to health and emphasis on mind-body balance align closely with mental health care needs. By integrating Ayurveda and modern medicine, healthcare providers could develop novel strategies for addressing these emerging challenges.

Barriers to Integration

The approach to understanding and explaining body functions is fundamentally different in the two. Ayurveda incorporates the *Pancha Mahabhoota* as the key explanation to body physiology that resonated with ancient Hippocratic texts and Egyptian medicine. Modern medicine started like that until the revolutionaries from 15th-century Europe when modern physiology took shape. The approach to holistic management has the same outcomes in both, but the way it is done is different.

Scientific Research: While Ayurveda has been practised for millennia and has countless anecdotal success stories, there is a significant lack of rigorous, evidence-based research according to the standards of modern medicine [6]. Many of Ayurveda's fundamental principles, such as the concepts of "doshas" and "Prakriti," are not readily amenable to the quantitative, reductionist analysis favoured in modern biomedical research. Although there are more scientific papers in journals with placebo-controlled trials of Ayurvedic formulations, the double-blinded cross-over trials are missing. This lack of solid scientific evidence can lead to

scepticism and resistance from modern medicine practitioners.

Standardisation and Quality Control: One of the major challenges in integrating Ayurveda with modern medicine is the issue of standardisation and quality control [13]. Ayurvedic treatments are highly individualised, and the same condition can be treated differently based on the patient's unique constitution or "prakriti." Moreover, Ayurvedic medicines are often complex mixtures of multiple herbs, making standardisation difficult. Issues related to the purity, safety, and efficacy of Ayurvedic formulations also pose significant challenges.

Regulatory Hurdles: Regulatory issues pose another barrier to integration [14]. The approval process for new drugs in modern medicine is rigorous and designed to ensure safety and efficacy. Due to their complex nature and the difficulty of isolating and testing individual components, Ayurvedic medicines often fail to meet these stringent regulatory requirements.

Cultural Prejudices: Differences in philosophy, terminology, and approach between Ayurveda and modern medicine can lead to misunderstandings and prejudice [15]. The complex Sanskrit terminology and philosophical concepts used in Ayurveda can seem alien and unapproachable to practitioners of modern medicine, who are trained in a fundamentally different paradigm.

Lack of Trained Practitioners: There is a shortage of practitioners trained in both Ayurveda and modern medicine, which is a major impediment to integration [16]. Most practitioners are trained in either one or the other, and few have the necessary knowledge and skills to integrate both systems effectively.

Overcoming Barriers

Promotion of Research: Overcoming the barriers to integration requires a concerted effort to promote rigorous research in Ayurveda [6]. This could involve using rigorous research methodologies, such as randomised controlled

trials, to validate the efficacy of Ayurvedic treatments. In addition, Ayurvedic principles could also be studied using modern scientific methods. For example, concepts like "doshas" and "prakriti" could be studied in the light of genomics and personalised medicine. Bioinformatics and systems biology could be used to understand the holistic nature of Ayurvedic treatments.

Standardisation and Quality Control: It is crucial to develop stringent standards for Ayurvedic practices and products [17]. This could involve establishing standard protocols for Ayurvedic treatments, developing standardised formulations for Ayurvedic medicines, and implementing rigorous quality control measures to ensure the purity, safety, and efficacy of Ayurvedic products. In addition, pharmacovigilance programs could be developed to monitor the safety and effectiveness of Ayurvedic treatments in real-world settings.

Regulatory Reforms: Addressing the regulatory challenges to integration could involve working with regulatory bodies to develop appropriate regulations for Ayurvedic medicines [14]. This could involve developing guidelines for preclinical and clinical testing of Ayurvedic medicines that take into account their unique characteristics. In addition, efforts could be made to include Ayurvedic treatments in health insurance schemes, which could help increase their acceptance and use.

Education and Training: Overcoming the cultural differences and prejudices between Ayurveda and modern medicine requires education and training [18]. This could involve incorporating elements of Ayurveda into the curriculum of medical schools, conducting workshops and seminars to increase awareness about Ayurveda among healthcare professionals, and developing training programs for Ayurvedic practitioners that incorporate elements of modern medicine.

Promotion of Integrative Medicine: Encouraging integrative medicine practice could help overcome the lack of trained practitioners [19].

This could involve developing training programs that provide healthcare professionals with the skills and knowledge needed to integrate Ayurveda and modern medicine. In addition, incentives could be provided to encourage healthcare providers to practice integrative medicine.

Conclusion

Integrating Ayurveda with modern medicine holds great promise for improving patient care. It offers a more holistic approach to healthcare, potentially leading to improved outcomes for patients with chronic diseases, cost savings, patient empowerment, and innovative solutions to emerging global health challenges. However, this integration has significant barriers, including a lack of rigorous scientific research, issues with standardisation and quality control, regulatory hurdles, and cultural differences. Overcoming these barriers requires a concerted effort from all stakeholders, including researchers, healthcare providers, regulatory bodies, and educators.

By promoting rigorous research, developing stringent standards for Ayurvedic practices and products, initiating regulatory reforms, providing education and training, and promoting the practice of integrative medicine, we can break down these barriers and realise the full potential of integrating Ayurveda with modern medicine. The ultimate goal is a comprehensive, integrated system of healthcare that draws on the strengths of Ayurveda and modern medicine to provide the best possible care for patients. Future research should focus on the best ways to achieve this integration, focusing on patient-centred outcomes, cost-effectiveness, and the treatment of chronic and emerging diseases.

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