

Review Article

Research in Ayurveda: Need for Globalization

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ABSTRACT:

Ayurveda is a science of life with a holistic approach to health and personalized medicine which has been sustaining since its evolution from thousands of years. Ever since its principles have never changed, and practised with full confidence and faith. As Ayurveda is an observational and research oriented science, even though at present era with the evolving world, every field of science requires justification. Since there is a strong need to explain fundamental principles in a modern context and growing demand for an evidence base: the research is prime need of contemporary Ayurveda. Teaching, Research, and Publication are the three basic components in the system of education. Globalization is a process of interaction and integration among the people, companies and governments of different nations. The focus is now on greater dissemination of ancient wisdom with a scientific research perspective on a global platform. This shows the increasing interest and awareness about Ayurveda among the global community. So all the Ayurvedic faculties should take appropriate pro-active steps, design a strategy for optimum outcome in the area of research publications in Ayurveda. The present review article highlights the importance of research in Ayurveda and publications for its Globalization.

KEY WORDS: Ayurveda, Research, Globalization, Publications.

INTRODUCTION:

Ayurveda is the world's most ancient methodical medical knowledge system. It has a holistic approach towards health and disease, using lifestyle, medication, healthy diet and fewer side effects. Evolution of this science has been started for human wellbeing. Globalization will help us to propagate it through worldwide. The mutual exchange of technology and knowledge around the world is known as Globalization.¹In India and in the rest of the world we are facing rapid changes in society with globalization, new emerging and rapidly spreading infectious diseases, changed disease patterns with treatment-resistant tuberculosis, rapid and dramatic climate changes and changed demography with an ageing population. Medical researches are essential to cope with these future challenges.²

Necessity is the mother of invention. This quest to search something new or reinvent the known that is

for the betterment of mankind is termed as Research. The research phenomenon is not new to the *Ayurveda* science of life. Research has been as old as the human tradition. The *Ayurveda* classical texts are full of direct and indirect references suggesting of research activity.³

Although Ayurvedic treatment is highly effective; proper mode of action, pharmacology, pharmacokinetics, and pharmacovigilance of many important Ayurvedic drugs are still not fully explored. Moreover, the comprehensive knowledge of the basic ideologies of Ayurveda is poorly acceptable scientifically due to lack of evidence. In the modern time, when the Western medicinal system is reached almost at the top because of validated research and advanced techniques, there is an urgent need to validate basic principles as well as drugs used in the Ayurvedic system of medicine with the help of advanced

research methodology. Therefore, advancements in the ongoing research methodology and its publication in journals are highly required for the Globalization of Ayurveda.

Research in Ayurveda:

Research is a lifelong passion. It is driven by a restless curiosity that is refined by meticulous, advanced skills, robust knowledge and humility. It is a quest for knowledge through diligent search or investigation or experimentation aimed at discovery and interrelation of new knowledge.⁴

But there has been a big debate amongst the *Ayurveda* fraternity regarding the need and utility of research in *Ayurveda*. Some of the staunch followers of the classical texts of *Ayurveda* affirm that there is no need of research in *Ayurveda* as the science of life, *Ayurveda* is a complete science promulgated by the seers of yore having the divine powers which make their deliberations beyond doubt. *Ayurveda* science, an offshoot of the ancient Indian source of knowledge known as *Veda* is unquestionable and thus there is no scope of research in *Ayurveda*. Also, it has been proved time and again that the basic principles of *Ayurveda* are purely scientific and have remained unchanged through the generations. A science having such a strong foundation cannot be challenged just like the classical *Vedas*. Thus, this group of scholars vehemently disapproves of any questioning of the *Ayurveda* tenets and therefore believes that *Ayurveda* is a wholesome science and thus there is no scope of research in *Ayurveda*.

However, there is a majority group which also strongly supports the conduction of research in Ayurveda. With the growing demand and globalization of the Ayurveda system of medicine, it has become an essential and urgent need to bring Ayurveda into the mainstream progressive sciences. The progressive sciences undergo continuous rectification and modification in tandem with the changing scenario of nature and the lifestyles. The research in Ayurveda becomes essential as the classical texts, the guiding principles were written centuries before. A lot has changed since then which mandates the modification and renewal of the same scientific parameters. Even the Ayurveda classics approve of such changes in accordance with the changing times.⁵

Recently, the awareness and fear of toxicity to allopathic drugs and the high cost of healthcare are causing an increasingly large number of people to seek alternatives. Rather than competing and veering

towards Western medicine, the Ayurvedic scientists should work to enhance the core competency of Ayurveda without compromising its fundamental principles.

Some major points which are responsible for trailing the Ayurveda are as following.

- Young Ayurvedic scholars, although enthusiastic, are not clear about their views on the future of Ayurveda. Moreover, they are not clear that how to expose their valuable research outputs on Ayurveda
- Experienced researchers with knowledge of modern technologies are required to conduct advanced and quality research in Ayurveda
- There is a lack of cooperation and willingness of Biomedical Scientists who are often unduly sceptical and carry prejudice
- Only a few choose their profession as a researcher in Ayurveda
- Lack of textbooks enriched with new research methodologies.

Research Methodology

Research methodology is a way to systematic collection, analysis, and interpretation of data to solve a research problem. India does not need to prove the validity of Ayurveda to its people, authorities, and own scientific community but there is a need of fundamental research on Ayurveda to refresh and upgrade the tremendous knowledge diluted through time particularly during the British rule. This kind of research will certainly upgrade the fundamental knowledge of Ayurveda, which will be benefitted not only to Indian but also to foreign nationals. This will assure Ayurveda to be practised with its whole potential and allowed to gain wide recognition, globally.

Research methodology in the advancement of Ayurveda varies with each assignment or project. The major areas of research can be divided into five major areas, namely, literary, fundamental, drug, pharmaceutical, experimental and clinical research. Although there is no single way to conduct research, certain methods and skillscan make research efforts more efficient and effective.⁶

1. Literary research

The formation of the presently available major classics of *Ayurveda* system of medicine namely the *Charaka Samhita*, *Sushruta Samhita* & the *Ashtanga*

AshtangaHridayam is a quintessential example of the conduction and approval of research.

The *AshtangaSamgraha* is the best example of literary research as the author *Vagbhata* himself admits that he has compiled the text to make the text up-to-date. Therefore the formation of these classical texts set an example of literary research themselves. Revival and retrieval of texts from ancient manuscripts / rare books, collection and compilation of references relating to drugs and diseases from classical treatises, lexicographic work, contemporary literature and publications related to Ayurveda should be continued under the Literary Research Programme.

2. Fundamental Research:

Development of Standardization Questionnaire for the Assessment of Prakriti and its relevance to the parameters of health and disease can be done through researches.

3. Drug Research

The drug research deals with the identification of the new drugs with their detailed analysis with regards to its attributes, qualities, action, and dosage and safety issues if any. Thus, it is a comprehensive study of a drug. In *Ayurveda*, the drug is termed as the instrumental cause of the desired effect and the point for drug research or examinations mentioned in classics are: Nature (*Prakriti*), Quality (*Guna*), Special effects (*Prabhava*), Place (*Desha*), Time and Mode of collection, Dosage (*Matra*) etc. play a pivotal role in comprehensive research of drug.

In the current scenario, there is a growing need to search for the newer drugs available in the contemporary environment hitherto not known.

4. Clinical Research

The clinical research is the crux of any system of medicine. The classical texts of *Ayurveda* are full of such findings in terms of the clinical research. The clinical research includes the diagnostics and therapeutics. *Ayurveda* mentions a number of examinations used for the diagnosis of the diseases and the methodology for their treatment. The sequential treatment principle is the key to the clinical treatment in *Ayurveda*. The basic principles of the treatment include *Langhana* (emaciation therapy), *Brimhana* (nourishing therapy), etc. have been tested on animals as the protocol of modern research, so various indirect references are mentioned.

From the above deliberations, it becomes clear that there is a tremendous demand for the research activity in *Ayurveda*. For the good of humanity and the need of the hour, it is essential to pursue a scientific and rational approach towards the development of the *Ayurveda* and its globalization.⁷

The scope of Research in Ayurveda

Research should be a process that converts data into information, information into knowledge and knowledge into wisdom. This is like transforming milk into ghee. It should be more balanced comprehensive, and equally emphasizing in the literary field, experimental and clinical research. It should be able to impact the fields of academics, pharmacy and practice in a profound way. Present day Ayurvedic researches are failing in this aspect as they are unable to disseminate the knowledge gained from the exercises

The current methodologies of research being applied in Ayurveda should be analyzed critically.

Predominantly, drug researches done in the field of Ayurveda in the last six decades have not enriched the Ayurvedic understanding or Ayurvedic concepts; however, these researches have created a better understanding of Ayurveda by the modern medical fraternity.

Since the last few years, it has been felt that there is a great need for a separate research methodology for Ayurveda and traditional medicines. Various researchers started to feel that conventional clinical trial regimen is not fit for Ayurveda.

Hence, in place of conventional evidence-based medicine (EBM) clinical trials, practice-based clinical trials should be organized for Ayurveda.

The clinical trials in Ayurveda are needed for –

- Revalidation of facts enumerated in Ayurvedic classics leading to the explanation of fundamental principles;
- To find out better treatment modalities for the existing diseases and for newer diseases;
- To standardize the treatment procedures scientifically;
- To establish the dose, duration, indication and side-effect profile of any given drug.⁸

On the other hand, it is well known that professional advancement of a scientist can be obtained by publishing good quality research in the journals.

Current Scenario of Ayurveda Journals⁹

Unfortunately, the scenario is discouraging. There are only a few journals in the field of Ayurveda that understand and encourage Ayurveda concepts and researches. AYU managed by IPGT and RA Jamnagar, JAIM by the Institute of Ayurveda and Integrative

Medicine, Bangalore, and ASL by The Ayurvedic Trust, Coimbatore are the only three Ayurveda journals indexed with PubMed and PubMed Central. There are few more journals that exclusively encourage Ayurveda works online also like Anvesha and Ayurved Darpan - Journal of Indian Medicine etc.

Table 1: Few other journals that encourage Ayurveda works:

Sr. No.	Journal	Published/managed by
1	Annals of Ayurveda Medicine	ScopeMed
2	Journal of Research and Education in Indian Medicine	
3	Journal of Indian Medical Heritage	CCRAS
4	Journal of Drug Research in Ayurvedic Sciences	
5	Journal of Research in Ayurveda	
6	Journal of Ayurveda	NIA, Jaipur
CCRAS: Central Council for research in Ayurvedic sciences, NIA: National Institute of Ayurveda		

DISCUSSION:

Ayurveda gives a lot of importance to the logic in combining plant, animal and mineral substances. A formulation does not become Ayurvedic just because it contains herbs or other ingredients described in the classical Ayurvedic texts. The combination of the ingredients, the methods of processing and the dosage form targeting specific path physiological states of the body is the hallmark of an Ayurvedic formulation.

The research in Ayurveda aims to develop a scientific view of the concepts and theories laid down in the classics with the necessary amendments made wherever desired to keep the basic principles intact. Thus, the challenge is to make Ayurveda in line with the contemporary progressive sciences through systematic research activity.

Ayurveda, by integrating with modern technologies, without changing the basic principles, is a challenging task that needs great insight in the field of *Ayurveda* and intellect nourished with Modern tonic.¹⁰

There is limited access to published research in the field of Ayurveda. Researchers find themselves groping in the dark to make an assessment of prior research work. A narrative review of prior research by screening published research papers will lay the foundation for identifying strengths and gaps in the evidence base that is available to vouchsafe the safety and efficacy of Ayurvedic interventions. It will also facilitate systematic reviews and meta-analyses in the

future.¹¹

Recently, the Hon'ble Secretary, Department of AYUSH, has expedited the publication of Ayurvedic data on the web by launching AYUSH portal. This is a very vital step toward globalization of Ayurveda because it will host the published as well as compilation works in all faculties of AYUSH on a single platform.

CONCLUSION :

Nearly half of the published research papers on Ayurveda are review papers. The majority of original research work is in the area of preclinical studies and drug standardization. Clinical research work is comparatively less and there is a scarcity of research designs and studies that address Ayurveda as a whole system. However, clinical trials outnumber case studies and case reports. An analysis of the preclinical and clinical work done in the field of Ayurveda gives important leads to identify priorities for future research on Ayurveda.

This is the right time; to come forward and take appropriate pro-active steps, design a strategy for optimum outcome in the area of research publications in Ayurveda.

Through the article knowledge in the form of nectar will be rejoiced by the Ayurvedic community and all. From the above discussion, it is apparent that there is a need of research in *Ayurveda* to help the ailing population. There is a lot of scope of research in

Ayurveda including the fundamental, literary, clinical and the therapeutics. Keeping the *Ayurveda* fundamentals intact, it is mandatory and obligatory to pursue scientific research and its publications in this probably the oldest system of medicine still practiced and followed by millions across the globe.

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