

## “Role Of Samhita Siddhant In Developing Research Methodology In Ayurveda”

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### ABSTRACT

**Background:** Ayurveda, as a knowledge system, is deeply rooted in the principles laid down in the *Samhitas*. The *Samhita Siddhant* provides the philosophical and methodological foundation for observation, inference, and application in health sciences. In the modern era, research methodology requires systematic frameworks, and the timeless principles of *Samhita Siddhant* can serve as guiding pillars. Exploring these principles helps bridge traditional wisdom with contemporary research practices. **Objectives:** To study the role of *Samhita Siddhant* in formulating research methodology in Ayurveda. To analyze classical references from *Charaka Samhita*, *Sushruta Samhita*, and *Ashtanga Hridaya* in relation to research design. To highlight the applicability of *Samhita Siddhant* in hypothesis formation, data interpretation, and validation of results. **Methods:** This is a conceptual literary research based on textual analysis of Ayurvedic classical texts including *Brihatrayi* and *Laghutrayi*. Supplementary references were taken from commentaries, contemporary Ayurvedic research publications, and modern texts on research methodology. The principles such as *Pratyaksha*, *Anumana*, *Aptopadesha*, and *Yukti* were critically examined and correlated with modern research approaches such as observation, hypothesis, experimentation, and statistical inference. **Results:** The study reveals that *Samhita Siddhant* provides a comprehensive framework for research methodology. Principles like *Trisutra* (Hetu, Linga, Aushadha) resemble the modern process of identifying cause, symptoms, and intervention. *Anumana* parallels inductive reasoning, while *Yukti* aligns with experimental design and multifactorial analysis. Ethical considerations, reproducibility of results, and systematic validation also find roots in the classical teachings. Thus, the integration of *Samhita Siddhant* enhances both authenticity and relevance of Ayurvedic research in the modern context. **Conclusion:** *Samhita Siddhant* is not only a philosophical foundation but also a methodological guide for research in Ayurveda. Its structured principles can be harmonized with modern scientific protocols to create a robust, evidence-based Ayurvedic research methodology. Recognizing and applying these classical insights can strengthen Ayurveda's contribution to global health research.

**Keywords:** *Samhita Siddhant*, Ayurveda, Research Methodology, *Pratyaksha*, *Anumana*, *Yukti*, Evidence-based Ayurveda

### INTRODUCTION

Ayurveda, the ancient science of life, is founded on a strong philosophical and methodological base as laid down in the *Samhitas*. The *Samhita Siddhant* provides universal principles that govern the understanding of health, disease, and therapeutics. These principles are not limited to clinical practice; they also provide direction for inquiry, reasoning, and validation, which are essential components of research methodology. In today's era, where evidence-based practices dominate, the rediscovery of these classical guidelines is highly relevant.<sup>1</sup>

Research methodology in Ayurveda cannot be confined to modern biomedical models alone. The uniqueness of Ayurveda lies in its holistic framework, which requires methodological tools that respect its theoretical foundations. Concepts like *Pratyaksha* (direct observation), *Anumana* (inference), *Aptopadesha* (authoritative testimony), and *Yukti* (rational application) reflect stages of knowledge acquisition that parallel observation, hypothesis, experimentation, and interpretation in modern research. Thus, *Samhita Siddhant* acts as a bridge, connecting traditional systems with modern scientific rigor.<sup>2</sup>

The classical texts also emphasize systematic structuring of knowledge through *Trisutra* (Hetu, Linga, Aushadha), *Padartha Vijnana*, and *Pramana*. These frameworks closely resemble problem identification, diagnostic criteria, and therapeutic validation in contemporary research. For example, *Hetu* (cause) aligns with etiological exploration, *Linga*

(symptoms) with clinical markers, and *Aushadha* (medicine) with intervention strategies. When studied critically, such principles offer ready templates for designing Ayurvedic clinical and conceptual research.<sup>3</sup>

Moreover, the ethical dimension of research is deeply rooted in Ayurvedic tradition. *Acharya Charaka* emphasized truth, compassion, and non-exploitation in research and clinical practice. Similarly, *Acharya Sushruta* highlighted the importance of systematic observation, documentation, and reproducibility through cadaveric dissection and surgical practice. These teachings underline the fact that Ayurveda has always advocated responsible and evidence-driven knowledge development, much before modern research ethics emerged.<sup>4</sup>

Therefore, the role of *Samhita Siddhant* in developing research methodology is not only historical but also futuristic. By re-interpreting these principles in the light of modern needs, researchers can create a uniquely integrated methodology that is both scientific and true to Ayurveda's holistic vision. This integration will ensure that Ayurvedic research maintains its authenticity while gaining global recognition in the scientific community.<sup>5</sup>

## OBJECTIVES OF STUDY:

1. To study the role of *Samhita Siddhant* in formulating research methodology in Ayurveda.
2. To analyze classical references from *Charaka Samhita*, *Sushruta Samhita*, and *Ashtanga Hridaya* in relation to research design.
3. To highlight the applicability of *Samhita Siddhant* in hypothesis formation, data interpretation, and validation of results.

## MATERIAL AND METHODS

This conceptual study was carried out through a literary review of classical Ayurvedic texts including the *Brihatrayi* (*Charaka Samhita*, *Sushruta Samhita*, and *Ashtanga Hridaya*) along with *Laghutrayi* and relevant commentaries. Key principles of *Samhita Siddhant* such as *Pratyaksha*, *Anumana*, *Aptopadesha*, and *Yukti* were critically analyzed and correlated with components of modern research methodology like observation, hypothesis formation, experimentation, and interpretation. Secondary sources such as peer-reviewed Ayurvedic journals, research articles, and modern textbooks on research methodology were also consulted to compare and integrate traditional concepts with contemporary scientific frameworks. The collected data was systematically organized, interpreted, and presented to highlight the methodological relevance of *Samhita Siddhant* in the present-day research paradigm.

## ROLE OF SAMHITA SIDDHANT IN DEVELOPING RESEARCH METHODOLOGY

Ayurveda, being one of the most ancient medical sciences, has its foundations deeply embedded in philosophical principles and applied sciences. Unlike modern medicine which is relatively recent in systematization, Ayurveda has preserved its doctrines in the form of *Samhitas*. These classical treatises, written by *Acharyas* such as *Charaka*, *Sushruta*, and *Vagbhata*, provide not only therapeutic guidelines but also a systematic process of inquiry and validation of knowledge. This process is what we understand today as “research methodology.” The *Samhita Siddhant*, or fundamental doctrines of the *Samhitas*, serve as a timeless methodological framework. They guide us from the very first step of problem identification, through observation and inference, to practical application and validation. In this way, Ayurveda has always had its own research methodology long before modern research paradigms were formalized.<sup>6</sup>

### Significance of *Pramana* in Methodological Framework

The doctrine of *Pramana* is central to *Samhita Siddhant*. The four classical *Pramanas*—*Pratyaksha* (direct perception), *Anumana* (inference), *Aptopadesha* (authoritative testimony), and *Yukti* (rational application)—cover the entire spectrum of knowledge generation. In research methodology, *Pratyaksha* represents direct observation, comparable to empirical data collection in modern science. For example, observing the therapeutic effect of a drug on patients forms the basis of clinical evidence. *Anumana* works like hypothesis formulation, where patterns observed in practice are extended to predict possible outcomes. *Aptopadesha* is similar to literature review, where established authoritative sources guide new investigations. Finally, *Yukti* goes beyond linear reasoning and applies multi-factorial logic, which resonates with experimental design and advanced multi-variable analysis. These *Pramanas* demonstrate that Ayurveda not only values observation but also insists on logical validation and reproducibility, which is at the heart of scientific research.<sup>7</sup>

### Role of *Trisutra Siddhant* in Structuring Research

The *Trisutra Siddhant*, consisting of *Hetu* (causative factors), *Linga* (signs and symptoms), and *Aushadha* (treatment), provides a triadic methodological framework. In modern research language, *Hetu* corresponds to identifying risk factors or etiology of disease, *Linga* represents diagnostic criteria and clinical manifestations, and *Aushadha* stands for therapeutic interventions. When viewed as a methodology, this triad reflects the structure of an epidemiological study or clinical trial. A researcher first identifies the cause, then establishes the presence of symptoms, and finally applies an intervention to

validate the hypothesis. This alignment shows that classical Ayurvedic methodology is not abstract philosophy but a highly structured system that can directly guide modern research designs.<sup>8</sup>

### **Ethical Considerations in Research Methodology**

Another major contribution of *Samhita Siddhant* to research methodology is its emphasis on ethics and responsibility. *Acharya Charaka* clearly described that a physician must be truthful, compassionate, free from greed, and dedicated to patient welfare. These values correspond to modern ethical guidelines such as beneficence, non-maleficence, autonomy, and justice. *Acharya Sushruta* emphasized cadaveric dissection as a means of acquiring anatomical knowledge, insisting on systematic documentation and reproducibility—principles central to modern biomedical research. These references show that Ayurveda always recognized the need for ethical responsibility, accuracy, and reproducibility, long before research ethics committees and institutional review boards were established. Thus, *Samhita Siddhant* forms a robust ethical and methodological foundation for modern-day research.<sup>9</sup>

### **Padartha Vijnana and Knowledge Categorization**

In Ayurveda, knowledge is organized under *Padarthas* (categories of knowledge), which provide another methodological tool for structuring research. The classification of reality into *Dravya* (substance), *Guna* (qualities), *Karma* (action), *Samanya* (similarity), *Vishesha* (difference), and *Samavaya* (inseparable relationship) offers a logical framework to analyze any subject. For instance, in drug research, *Dravya* corresponds to the raw material, *Guna* to its properties, *Karma* to pharmacological action, and *Samanya-Vishesha* to therapeutic principles of similarity and difference. Modern pharmacology, with its emphasis on drug molecules, properties, and actions, mirrors this system of classification. Therefore, *Padartha Vijnana* is not only philosophical but methodological, enabling systematic categorization, analysis, and interpretation of data.<sup>10</sup>

### **Correlation of Pratyaksha and Experimental Observation**

The *Pratyaksha Pramana* or direct perception is akin to the empirical approach in modern science. Just as modern research relies on data collected through experiments, clinical trials, and observation, Ayurveda emphasizes seeing, hearing, and directly experiencing phenomena as the most reliable foundation of knowledge. For example, clinical signs of *Jwara* (fever) described by *Acharya Charaka* were based on meticulous observation of patients. Today, the same principle guides the collection of clinical evidence in hospitals and research laboratories. This demonstrates that observation-based methodologies were an integral part of Ayurveda, validating its research-oriented nature.<sup>11</sup>

### **Anumana and Hypothesis Development**

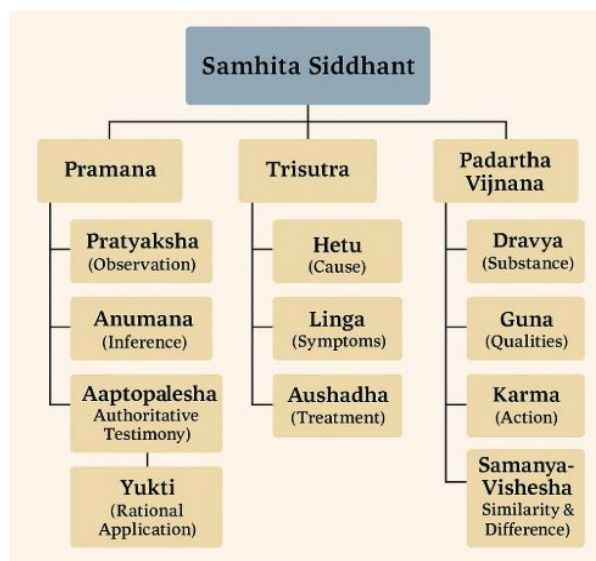
In modern research, hypotheses are often developed through logical inference from existing data or patterns. Ayurveda's *Anumana Pramana* fulfills exactly this role. For example, if a certain *Hetu* (causative factor) consistently produces a disease, one can infer its role even without direct observation every time. This is similar to statistical prediction models in modern research. *Anumana* allows Ayurveda to go beyond mere observation and extend reasoning to new situations, ensuring the continuity and applicability of research findings. It is this inferential reasoning that allows Ayurveda to remain dynamic and adaptable even today.<sup>12</sup>

### **Yukti and Experimental Design**

Among the four *Pramanas*, *Yukti* is the most advanced in terms of research methodology. It refers to rational application of knowledge, taking into account multiple factors simultaneously. In research, *Yukti* is comparable to designing experiments where multiple variables interact, such as in randomized controlled trials or multi-arm studies. For instance, in treating *Atisara* (diarrhea), Ayurveda does not rely on a single drug but applies dietary modifications, lifestyle regulation, and drug therapy together—a true example of multifactorial research design. Thus, *Yukti* anticipates complex experimental planning and holistic interventions much before systems biology or integrative medicine became modern research trends.<sup>13</sup>

### **Relevance in Modern Evidence-Based Research**

Modern science emphasizes evidence-based medicine, where treatments must be validated through rigorous methodology. Ayurveda's *Samhita Siddhant* aligns well with this principle, though it takes a broader perspective by including subjective, qualitative, and holistic dimensions of evidence. The integration of *Pramana* with contemporary research tools like clinical trials, cohort studies, and systematic reviews creates a uniquely robust methodology. This not only strengthens Ayurveda's credibility in global research platforms but also ensures that its holistic wisdom is not lost in the reductionist tendencies of modern science.<sup>14</sup>



### 1. Pramana as Research Tools

- *Pratyaksha* → Direct observation = Data collection, clinical and experimental observation.
- *Anumana* → Logical inference = Hypothesis building and predictive reasoning.
- *Aaptopadesha* → Authoritative testimony = Literature review and classical textual support.
- *Yukti* → Rational application = Experimental design, multi-factorial analysis.

### 2. Trisutra Siddhant as a Research Framework

- *Hetu* (cause) = Identification of etiological factors and risk determinants.
- *Linga* (symptoms) = Diagnostic markers and outcome assessment.
- *Aushadha* (therapy) = Intervention, trial, and validation.

### 3. Padartha Vijnana as Systematic Classification

- *Dravya* = Research material (drug/plant/intervention).
- *Guna* = Pharmacological or therapeutic qualities.
- *Karma* = Action or pharmacodynamics.
- *Samanya-Vishesha* = Comparative principle, useful for control vs study groups.

### 4. Ethical Foundations from Samhita

- *Charaka* emphasized truth, impartiality, and patient-centric ethics.
- *Sushruta* stressed reproducibility, systematic observation, and documentation.
- These align with modern GCP (Good Clinical Practice) and Helsinki Declaration principles.

### 5. Integration with Modern Methodology

- Classical stepwise flow = Observation → Hypothesis → Diagnosis → Intervention → Validation.
- *Yukti* resonates with modern RCTs and multi-variable system approaches.
- Ensures Ayurveda remains authentic while meeting evidence-based global research standards

## DISCUSSION

The analysis of *Samhita Siddhant* clearly shows that Ayurveda's classical doctrines provide a structured framework for research methodology. The principles of *Pramana* (means of valid knowledge) resemble the essential steps of modern scientific research, such as observation, hypothesis formation, validation, and application. By integrating *Pratyaksha*, *Anumana*, *Aaptopadesha*, and *Yukti* into research design, Ayurveda demonstrates that it has long valued both empirical and logical foundations for acquiring knowledge. This is highly relevant today, as modern science also emphasizes the importance of evidence gathered from multiple approaches.<sup>15</sup>

The *Trisutra Siddhant* (*Hetu*, *Linga*, *Aushadha*) further strengthens this alignment. In research methodology, it provides a sequential model beginning with the identification of causative factors, followed by recognition of clinical signs and symptoms, and finally the application of interventions. This triad is remarkably similar to the modern research process of defining a problem, setting diagnostic criteria, and testing interventions. It highlights that Ayurveda's classical methods were not only theoretical but also pragmatic, capable of guiding clinical and experimental research systematically.<sup>16</sup>

Ethical and methodological considerations described in the *Samhitas* also contribute significantly to the discussion. *Charaka* emphasized honesty, objectivity, and compassion, while *Sushruta* laid down systematic rules for observation,

documentation, and reproducibility through dissection and surgical practice. These insights resonate with modern ethical frameworks such as informed consent, beneficence, and reproducibility of results. This demonstrates that Ayurveda anticipated many principles that are now considered cornerstones of research ethics and scientific integrity.<sup>17</sup> Finally, integrating *Samhita Siddhant* with modern scientific methodology can create a uniquely balanced research approach. While modern research is often reductionist and quantitative, Ayurveda offers a holistic and qualitative dimension that values context and individuality. Concepts like *Yukti* encourage multi-variable reasoning, which aligns with systems biology and integrative medicine models. Therefore, the discussion reveals that rather than existing in isolation, classical Ayurvedic doctrines can actively enrich and complement modern research practices, helping Ayurveda gain global recognition as a scientifically robust system of medicine.<sup>18</sup>

## CONCLUSION

The study establishes that *Samhita Siddhant* serves as a timeless framework for developing research methodology in Ayurveda. Doctrines such as *Pramana*, *Trisutra Siddhant*, *Padartha Vijnana*, and *Yukti* provide structured processes that correspond to observation, hypothesis formation, diagnostic validation, intervention, and logical analysis in modern science. These principles also emphasize ethics, reproducibility, and systematic documentation, showing that Ayurveda anticipated the essential elements of contemporary research practice. By integrating classical insights with modern scientific tools, Ayurveda can strengthen its evidence base while preserving its holistic essence, thereby ensuring its continued relevance and acceptance in global health research.

## CONFLICT OF INTEREST –NIL

## SOURCE OF SUPPORT –NONE

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