WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
Coden USA: WJPRAP Impact Factor 8.453
Volume 14, Issue 20, 468-478. Research Article ISSN 2277–7105

A SUMMARY OF THE ROLE PLAYED BY PRAMANAS IN AYURVEDIC RESEARCH METHODS

[*1]Divyanshi Verma, [2]Pankaj Singh, [3]Anshul Sharma, [4]Ravi Pratap Singh, [5]Saloni Vishnoi, [6]Sushma

[*1,3,4,5,6]P. G. Scholar, Department of Rachana Sharir, Himalayiya Ayurvedic (PG) Medical College and Hospital Fatehpur Tanda, Jeevanwala, Dehradun, Uttarakhand, India.
[2]Assistant Professor, Department of Rachana Sharir, Himalayiya Ayurvedic (P.G) Medical College and Hospital, Fatehpur Tanda, Jeevanwala, Dehradun, Uttarakhand, India.

Article Received on 18 Sept., 2025,
Article Revised on 08 October 2025,
Article Published on 16 October 2025,
https://doi.org/10.5281/zenodo.17364865

***Corresponding Author**
Divyanshi Verma
P. G. Scholar, Department of Rachana Sharir, Himalayiya Ayurvedic (PG) Medical College and Hospital Fatehpur Tanda, Jeevanwala, Dehradun, Uttarakhand, India.

How to cite this Article: *Divyanshi Verma, Pankaj Singh, Anshul Sharma, Ravi Pratap Singh, Saloni Vishnoi, Sushma. (2025) A Summary of The Role Played By Pramanas In Ayurvedic Research Methods. World Journal of Pharmaceutical Research, 14(20), XXX–XXX.

ABSTRACT

Ayurveda is recognized as a scientific discipline that relies upon four *Pramāṇas*: *Aptopadesa*, *Pratyakṣa*, *Anumana*, and Yukti. Among these, *Aptopadesa* serves as the primary source of knowledge acquisition; *Pratyakṣa* represents direct perception; *Anumana* provides inferential understanding; and *Yukti* emphasizes rational and logical interpretation. These *Pramaṇas* collectively hold a vital position in Ayurvedic research methodology, as they guide the entire research process—ranging from the selection of a problem and formulation of a hypothesis to data collection, analysis, interpretation, and dissemination of results. With the increasing exploration of Ayurvedic specialties, researchers are required to maintain equilibrium between classical principles and modern scientific tools. Within this framework, *Siddhanta*, described under the forty-four *Vadamargas*, is considered a significant instrument for theory formulation. It is categorized into four types: *Abhyupagama Siddhanta*, *Sarva Tantra Siddhanta*, *Pratitantra Siddhanta*, and *Adhikaran Siddhanta*. For any research undertaking, systematic planning and preparation are indispensable. Research itself may be defined as the pursuit of new knowledge, while research methodology represents the structured approach employed to identify, process, and analyse a given problem. In Ayurveda, valid knowledge is referred to as *Parma*, and the

means by which it is acquired are termed *Pramaṇa*, both of which constitute the foundation of Ayurvedic research methodology.

KEYWORDS: *Pramana, Pararthanumana,* Research Methodology, *Aptopdesha, Pratyaksha, Anumana, Yukti.*

INTRODUCTION

New knowledge, which forms the basis of scientific progress, continues to emerge from diverse sources. Ayurveda also identifies multiple means of acquiring knowledge, which are collectively termed *Pramanas.*[1]

Acharya Charaka uses the word *Pariksha* in place of *Pramana*. *Pariksha* refers to an analytical and confirmatory method used to establish the true nature of an object or concept. Through *Pariksha*, one evaluates reality using *Pramanas*. According to Charaka, everything can be classified as either existent (*Sat/Bhava*) or non-existent (*Asat/Abhava*), and such realities can be understood through four types of *Pramana*

- ***Aaptopadesha*** (authoritative testimony),
- ***Pratyaksha*** (direct perception),
- ***Anumana*** (inference), and
- ***Yukti*** (logical reasoning).

Charaka emphasizes that for a complete understanding of diseases, one must study these *Pramanas*—particularly *Aaptopadesha*, *Pratyaksha*, and *Anumana*. Among them, *Aaptopadesha* serves as the primary source of information, while *Pratyaksha* and *Anumana* provide supportive verification.[2] The earliest and most authentic form of knowledge in Ayurveda or any discipline is *Aaptopadesha*, whereas the other two are sufficient for those already grounded in the basic sciences.[3]

The foundation of theoretical understanding in Ayurveda rests on *Aaptopadesha*, making it the foremost approach to knowledge acquisition. *Pratyaksha* provides direct experiential knowledge, *Anumana* enables inferential reasoning, and *Yukti* highlights the importance of logical analysis.[4] With the expansion of Ayurvedic research in specialized domains, there is a pressing need to harmonize classical Ayurvedic principles with modern research tools. Developing a research methodology rooted in Ayurvedic epistemology is essential, and *Pramanas* offer a robust framework for this endeavor.[5]

Etymologically, the term *Pramana* derives from "*Ma*" (*dhatu*), the prefix "*Pra*," and the suffix "*Lyut*." It denotes the valid means of acquiring true knowledge. As explained by Chakrapani, *Pramana* serves as a tool for examining and validating knowledge. Terms such as *Pariksha* (examination), *Jnana* (knowledge), *Sadhana* (means), and *Uplabdhi* (attainment) are often used interchangeably with *Pramana*. Ayurvedic literature consistently recognizes four types of *Pramana*: *Aaptopadesha*, *Pratyaksha*, *Anumana*, and *Yukti*.

Aptopadesa Pramaṇa

The term *Apta* refers to a person of wisdom. *Aptopadesa* is considered a valid means of knowledge (*Pramaṇa)*, representing the trustworthy teachings of enlightened individuals who are free from *rajas* (passion) and *tamas* (ignorance)[6]. As explained by Acharya Charaka, an *Apta* is one whose intellect is pure, unobstructed, and guided by truth, without attachment or aversion. Thus, the words and authoritative instructions of such reliable persons constitute *Aptopadesa Pramaṇa*.[7]

Pratyakṣa Pramaṇa

Pratyakṣa (direct perception) arises through the close association of the soul, senses, mind, and external objects. It refers to knowledge acquired directly through sense perception. This form of cognition is considered a fundamental source of knowledge.[8] Acharya Susruta emphasized the importance of integrating *Aptopadesa* with *Pratyakṣa* for the advancement of knowledge. *Pratyakṣa Pramaṇa* is further classified into two types

- *Laukika Pratyakṣa* – ordinary perception of the external world through regular sensory contact.[9]
- *Alaukika Pratyakṣa* – extraordinary perception arising from super sensory or transcendental experiences.

Anumana Pramaṇa

Anumana (inference) is the process of arriving at knowledge of the unknown based on what is already known. It represents reasoning through indirect evidence and is dependent upon *Pratyakṣa* and *Aptopadesa*. The knowledge derived through inference is called *Anumiti*, and it is considered an important means of logical understanding. *Anumana Pramaṇa* is of two types

- *Svarthanumana* – inference for one's own understanding, developed through curiosity and logical reasoning.[10] A questioning and analytical approach helps an individual reach valid conclusions.

- *Pararthanumana* – inference intended for explaining or proving a point to others. This is established through the five-part logical framework (*Pancavayavi Vakya*): *Pratijna* (proposition), *Hetu* (reason), *Udaharaṇa* (example), *Upanaya* (application), and *Nigamana* (conclusion).

Yukti Pramana

Yukti refers to rational or systematic reasoning based on the interaction of multiple causative factors. It is considered universally applicable and beneficial in achieving the three aims of life – *Dharma* (righteousness), *Artha* (prosperity), and *Kama* (fulfillment of desires). *Yukti Pramaṇa* signifies logical and purposeful correlation of different elements that results in practical and constructive knowledge.[11]

Scope of *Aptopadesa Pramaṇa* in Research

1. **Identification of Research Problems**
   - An in-depth study of *Aptopadesa* provides valuable guidance in defining and identifying research problems.
   - For example, it may support analytical studies that explore correlations, such as between dermatological manifestations and *Chhardi Vega Dharaṇa* (the suppression of the natural urge to vomit).

2. **Literary and Historical Review**
   - For any researcher, reviewing relevant literature in the chosen field of study is essential.
   - *Aptopadesa* serves as a fundamental source for literary and historical references in Ayurvedic research.

3. **Contribution to Discussions and Debates**
   - The concept of *Vada Marga*—the structured methods of logical reasoning explained in the eighth chapter of *Charaka Vimana Sthana*—emphasizes the importance of debate and dialogue.
   - Mastery of *Vada Marga* not only refines debating ability but also strengthens communication skills, enabling healthcare professionals to interact effectively with patients, communities, and academic peers.

Role of *Aptopadesa* in Theory Development

According to the *World Journal of Pharmaceutical Research*, the concept of *Siddhanta*—discussed under the 44 *Vada-margas*—represents principles established through repeated analysis and reasoning, similar to accepted scientific theories.

The four categories of *Siddhanta* are as follows

- ***Abhyupagama Siddhanta*** – considered a provisional postulate or assumption, comparable to a hypothesis in modern research.
- ***Sarva-tantra Siddhanta*** – universal principles applicable across all sciences.
- ***Pratitantra Siddhanta*** – theoretical principles confined to a specific discipline or text.
- ***Adhikaraṇa Siddhanta*** – context-specific principles, valid only under certain conditions.

Among these, *Abhyupagama Siddhanta* aligns closely with the concept of a hypothesis, as it provides direction, focus, and clarity to a research study.

For example, an analytical investigation may explore the relationship between the inclusion of Research Methodology and Statistics in the final year of the BAMS curriculum and the enhancement of scientific writing skills among undergraduate Ayurvedic students. In such a study, a hypothesis can be framed as

- **Null Hypothesis:** The introduction of Research Methodology and Statistics in the final year of the BAMS curriculum has no effect on the scientific writing skills of undergraduate Ayurvedic students.[12]
- **Alternative Hypothesis:** Foundational training in Research Methodology and Statistics in the final year of the BAMS curriculum significantly contributes to the improvement of scientific writing among undergraduate Ayurvedic students.

Scope of *Pratyakṣa Pramaṇa* in Research

The scope of *Pratyakṣa Pramaṇa* (direct perception) in the field of research can be understood through the following aspects.

1. Support for Clinical and Experimental Research

Pratyakṣa Pramaṇa enables direct perception of sensory attributes such as *Sabda* (sound), *Sparsa* (touch), *Rupa* (form/appearance), and *Gandha* (smell)—with the exception of *Rasa* (taste)—during clinical examinations and experimental studies. It is especially significant in *Rogi-Roga Parikṣa* (clinical diagnosis and assessment).

2. Assistance in Data Collection

Modern research relies heavily on methods like observation, interviews, and questionnaires, all of which are grounded in *Pratyakṣa Pramaṇa*. Other methods, such as surveys, experiments, and documentation, also incorporate this principle to varying degrees. Experimental studies (prospective research) in particular are deeply dependent on direct perception.[13]

Scope of *Anumana Pramaṇa* in Research

Anumana (inference) has a wide application in research design and interpretation. Its scope can be outlined as follows

- **Retrospective Studies:** Inference of cause from effect relates to the past and corresponds to the case–control study design.
- **Prospective or Cohort Studies:** Inference of cause–effect relationships projected into the future resembles cohort or prospective studies.
- **Cross-sectional Studies:** Inferences drawn from present observations align with cross-sectional (time prevalence) study designs.

For instance, *Charaka Saṃhita* mentions that individuals suffering from *Karsya* (emaciation) are more prone to *Pliha Roga* (splenic disorders). This reflects an inferential relationship between malnutrition and splenomegaly, which can be further explored through analytical research.

Pramaṇas as the Foundation of Scientific Inquiry in Ayurveda

Ayurveda, one of the world's most ancient sciences, employs *Pramaṇas* as tools of examination and validation. These serve as evidence of Ayurveda's scientific foundation. Every form of research, both ancient and modern, seeks to establish cause-and-effect relationships, and *Pramaṇas* are central to this process.[14]

Acharya Susruta emphasized the importance of studying all available texts in any discipline. He observed that one who studies only a single branch of knowledge cannot arrive at proper conclusions.[15] Thus, authoritative references (*Aptopadesa*) form the theoretical basis of investigations, which are later reinforced by empirical findings. For reliable information, texts authored by recognized experts in the field are considered essential.

A true researcher must remain updated in their field, acquiring the intellectual and practical skills necessary to carry out investigations.[16] *Aptopadesa* thus serves as both a foundation for learning and a guide for understanding the current state of scientific knowledge.[17]

Scientific Method vs. Arbitrary Approach

Knowledge acquisition can follow either a scientific method or an arbitrary/unscientific approach. The arbitrary method is based on personal opinion or unfounded assumptions and lacks credibility. Ayurveda, however, clearly relies on systematic and logical inquiry, as seen in *Pramaṇa Vijnana* described in classical texts. The scientific method is structured, evidence-based, verifiable, and unbiased—qualities that align with the methodology of Ayurveda.

Examples of Research Gaps in Classical Texts

Despite Ayurveda's strong scientific foundation, certain textual statements invite further investigation

- In *Charaka Saṃhita*, the *Samprapti* of *Paṇḍu Roga* mentions depletion of *Rakta Dhatu* and *Meda Dhatu*, but the mechanism for *Meda Dhatu kṣaya* is not explained.[18] Current practice emphasizes correction of *Rakta Dhatu* but often neglects *Meda Dhatu*, suggesting a scope for further study.
- *Aṣṭanga Hṛidaya* states that *Meda Dhatu kṣaya* leads to *Pliha Vṛddhi* (splenomegaly), but does not elaborate the cause–effect mechanism (*Karya–Karaṇa Bhāva*).
- According to *Samanya–Viseṣa Siddhanta*, depletion of *Rakta Dhatu* should lead to preference for hot substances, yet classical texts note a preference for cold ones. This contradiction provides another area for exploration.[19]

  Such examples highlight the need to revisit *Aptopadesa* with rational and scientific scrutiny, allowing researchers to identify and frame new research problems.[20]

Data Collection and Interpretation

In research, data may be primary (newly collected) or secondary (already available).[21] The main methods of data collection—questionnaires, interviews, and direct observation—are all linked to *Pratyakṣa Pramaṇa*. Clinical trials and experimental studies rely heavily on direct perception, while *Anumana* assists in interpreting outcomes and establishing cause–effect relationships.[22]

Inference allows researchers to generalize findings and draw valid conclusions. Tools like *Panchavayavi Vakya* (proposition, reason, example, application, and conclusion) guide systematic reporting of findings and bear close resemblance to the IMRAD (Introduction, Methods, Results, and Discussion) format in modern scientific writing.[23]

Role of *Yukti Pramaṇa* in Research

Yukti (rational correlation) assists researchers in establishing connections between multiple causes and their effects. It supports systematic planning, organization, and execution of studies. Successful research depends on careful preparation, and *Yukti Pramaṇa* provides the methodological framework for this process.[24]

DISCUSSION AND CONCLUSION

Ayurveda represents a structured body of knowledge that forms the basis of scientific progress. It recognizes four fundamental ***Pramanas*** or means of valid knowledge: ***Aptopadesha*** (authoritative testimony), ***Pratyaksha*** (direct perception), ***Anumana*** (inference), and ***Yukti*** (logical reasoning).[25] According to Acharya Charaka, Pramana serves as the instrument through which one can verify and establish the true nature of an object.

Among these, *Aptopadesha* is considered the primary channel for gaining knowledge, while *Pratyaksha* denotes direct observation or experience. *Anumana* functions through inferential reasoning, and *Yukti* emphasizes analytical logic. With the expansion of specialized studies in Ayurveda, it becomes essential to harmonize traditional principles with modern research tools.[26]

Pramanas are repeatedly highlighted in classical texts as central to the growth of research methodology in Ayurveda. ***Aptopadesha Pramana***, in particular, supports identifying research questions, reviewing classical and historical literature, and contributing to discussions and debates. This not only strengthens academic pursuits but also cultivates communication skills necessary for patient care and public health education.[27]

Siddhanta, discussed in the 44 *Vadamargas*, provides a foundation for developing theories. It is categorized into four types

- ***Abhyupagama Siddhanta*** (postulate/hypothesis)
- ***Sarva Tantra Siddhanta*** (universal principle)
- ***Pratitantra Siddhanta*** (text-based principle)
- ***Adhikaran Siddhanta*** (contextual principle)

For example, studies have examined whether introducing *Research Methodology and Statistics* in the final year of the BAMS curriculum improves scientific writing skills among Ayurveda undergraduates. Such inquiries exemplify the use of hypothesis-driven research rooted in *Siddhanta*.[28]

Pratyaksha Pramana is vital in experimental and clinical research, enabling direct perception of sensory elements such as *Shabda* (sound), *Sparsha* (touch), *Rupa* (form), *Gandha* (smell), and *Rasa* (taste). It also plays a role in clinical assessments (*Rogi-Roga Pariksha*). Data can be collected through observation, questionnaires, interviews, surveys, experiments, and proper documentation.[29]

Anumana Pramana extends to predicting effects from causes, analysing cause–effect relationships, and interpreting present conditions. For instance, *Charaka Samhita* notes that malnourished individuals (*Krishna*) are more prone to *Pliha Roga* (splenic disorders), suggesting the need to explore links between *Karshya* (emaciation) and spleen pathology through inferential reasoning.[30]

Being one of the world's oldest sciences, Ayurveda relies on *Pramanas* to validate its evidence-based framework. Regular review of classical sources and contemporary literature is essential for maintaining scientific rigor. *Aptopadesha*, when used judiciously, helps in formulating theories and reinforcing research conclusions.[31]

Furthermore, ***Pratyaksha Pramana*** supports hypothesis testing and correlation studies, while ***Yukti Pramana*** aids in connecting causes with their outcomes, ensuring comprehensive analysis. Tools like *Panchavyavi Vakya* guide scholars in structuring and reporting research results.[32]

In essence, *Pramanas* guide every step of the research process—from selecting the problem, framing the hypothesis, collecting and analysing data, interpreting results, to disseminating findings. Therefore, research methodology in Ayurveda must remain anchored in these four *Pramanas*, as they ensure systematic inquiry, logical direction, and authenticity in every scholarly pursuit.

REFERENCES

1. Tubaki BR, Prasad BS. Ayurveda fundamentals and science - A perspective. Ayu, 2022; 43(2): 65–70.

2. Katyar P, Kumar V. A REVIEW ON CONCEPT OF PRAMANA IN NYAYA DARSHANA AND CHARAK SAMHITA. Int Ayurvedic Med J, 2023; 17(11): 3061–5.
3. Joglekar A, Bhojani M. Aaptopadesha pramana, 2022; 9.
4. Joglekar A, Bhojani M. Pratyaksha pramana, 2022; 20.
5. Chauhan A, Semwal DK, Mishra SP, Semwal RB. Ayurvedic research and methodology: Present status and future strategies. Ayu., 2015; 36(4): 364–9.
6. Warghade M, Mulik G. the AYURVEDIC REVIEW ON ROGI PARIKSHA SIDDHANT IN SHORT. Natl J Res Ayurved Sci, 2021; 5: 9.
7. Joglekar A, Bhojani M. Aaptopadesha pramana, 2022; 9.
8. Joglekar A, Bhojani M. Pratyaksha pramana, 2022; 20.
9. Joglekar A, Bhojani M. Pratyaksha pramana, 2022; 20.
10. Joglekar A, Bhojani M. Anumana pramana, 2022; 22.
11. Joglekar A, Bhojani M. Yukti pramana, 2022; 24.
12. GR A, Mohan K. Textbook of Research Methodology and Medical Statistics for B.A.M.S students, 2024.
13. Joglekar A, Bhojani M. Pratyaksha pramana, 2022; 20.
14. Chauhan A, Semwal DK, Mishra SP, Semwal RB. Ayurvedic research and methodology: Present status and future strategies. Ayu, 2015; 36(4): 364–9.
15. Guleria M, Choudhary K. A GLIMPSE OF CONTRIBUTIONS OF ACHARYA SUSHRUTA IN SURGERY. WORLD J Pharm Pharm Sci, 2015; 1(4): 291–317.
16. Chauhan A, Semwal D, Mishra S, Semwal R. Ayurvedic research and methodology: Present status and future strategies. AYU, 2015; 1(15): 364–9.
17. Bhojani M, Joglekar A. Aaptopadesha pramana (knowledge by authoritative statement. In, 2021.
18. Patil S, Baghel AS, Dwivedi R. Methods of Examination and Investigation in Ayurveda : A review in reference to Pramana Vijnana (Epistemology). Ann Ayurvedic Med, 2021; 8(3): 42–7.
19. Kumar A, Garai AK. A clinical study on Pandu Roga, iron deficiency anemia, with Trikatrayadi Lauha suspension in children. J Ayurveda Integr Med, 2012; 3(4): 215–22.
20. Chauhan A, Semwal DK, Mishra SP, Semwal RB. Ayurvedic research and methodology: Present status and future strategies. Ayu, 2015; 36(4): 364–9.
21. Joglekar A, Bhojani M. Aaptopadesha pramana, 2022; 9.
22. Kabir SM. METHODS OF DATA COLLECTION. In, 2016; 201–75.

23. Sollaci LB, Pereira MG. The introduction, methods, results, and discussion (IMRAD) structure: a fifty-year survey. J Med Libr Assoc JMLA, 2004; 92(3): 364–7.
24. Joglekar A, Bhojani M. Yukti pramana, 2022; 24.
25. Joglekar A, Bhojani M. Pramana, 2021; 2.
26. Joglekar A, Bhojani M. Aaptopadesha pramana, 2022; 9.
27. Joglekar A, Bhojani M. Aaptopadesha pramana, 2022; 9.
28. Baragi U. Siddhanta & Types, 2015.
29. Joglekar A, Bhojani M. Pratyaksha pramana, 2022; 20.
30. Joglekar A, Bhojani M. Anumana pramana, 2022; 22.
31. Tubaki BR, Prasad BS. Ayurveda fundamentals and science - A perspective. Ayu, 2022; 43(2): 65–70.
32. Vinodkumar MV, Anoop AK. Review on comparability of ―classical‖ and ―contemporary‖ research methods in the context of Ayurveda. J Ayurveda Integr Med, 2020; 11(4): 539–46.