



TRIVIDHA JNANOPAYA: AN AYURVEDIC MODEL LINKING CLASSICAL THOUGHT WITH MODERN PEDAGOGY

Dr. Swarnima Sharma¹, Dr Haroon Irshad²

¹PG Scholar, Department of Ayurveda Samhita and Siddhanta

Sri Dharmasthala Manjunatheshwara College of Ayurveda and Hospital, Thanniruhalla, Hassan, Karnataka, India

²Professor, Department of Ayurveda Samhita and Siddhanta

Sri Dharmasthala Manjunatheshwara College Of Ayurveda And Hospital, Thanniruhalla, Hassan, Karnataka, India

Article DOI: <https://doi.org/10.36713/epra31360>

DOI No: 10.36713/epra31360

ABSTRACT

Trividha Jnanopaya is a classical Ayurvedic pedagogical framework described in the Charaka Samhita, representing the threefold means of acquiring and transmitting knowledge through Adhyayana (self-study), Adhyapana (teaching), and Tadvidya Sambhasha (scholarly discussion). This review explores the conceptual foundations of Trividha Jnanopaya and examines its relevance in relation to contemporary medical education. A scoping literature review was conducted using classical Ayurvedic texts, including Charaka Samhita, Sushruta Samhita, Ashtanga Hridaya, and Ashtanga Sangraha, along with recent peer-reviewed literature on modern educational theories. The analysis identified strong conceptual parallels between Ayurvedic teaching methodology and learner-centered competency-based education. Adhyayana corresponds to systematic knowledge acquisition, comprehension, and reflective learning; Adhyapana emphasizes structured instruction, ethical discipline, and the ideal qualities of teacher and student; while Tadvidya Sambhasha promotes critical thinking, intellectual refinement, and professional communication through scholarly dialogue. These principles closely align with modern educational frameworks such as Bloom's taxonomy, Miller's pyramid, self-directed learning, and collaborative learning approaches. The review highlights that Ayurvedic pedagogy offers a holistic educational model integrating cognitive, affective, and psychomotor development. While traditional methods may lack standardized assessment and technological integration, their emphasis on discipline, mentorship, ethical conduct, and experiential understanding provides enduring educational value. Integrating Trividha Jnanopaya with modern competency-based strategies may strengthen contemporary medical education by combining traditional depth with scientific rigor and learner-centered innovation.

KEYWORDS: Trividha Jnanopaya, Ayurvedic Pedagogy, Blooms Taxonomy, Teaching-Learning Methodology

INTRODUCTION

Ayurvedic knowledge has been preserved and transmitted through successive generations, initially through oral instruction and later being codified into written texts for systematic preservation and dissemination. The educational tradition of ancient India was primarily founded on the Gurukul system, which was also integral to Ayurvedic education. The Guru-Shishya Parampara, a time-honored pedagogical tradition, has been practiced since the Vedic era as the principal means of acquiring and transmitting knowledge. Within this sacred educational framework, knowledge was systematically imparted from the Guru (teacher) to the Shishya (disciple), ensuring the preservation, continuity, and authentic transmission of wisdom across generations.

The classical texts of Ayurveda provide a detailed exposition of various means of acquiring knowledge. The teaching-learning methodologies described in the Samhitas are time-tested pedagogical approaches that have been validated through centuries of practice and scholarly transmission. Among the various educational methods explained in the Brahattrayi, Trividha Jnanopaya is recognized as one of the fundamental approaches to knowledge acquisition, offering a systematic framework for effective teaching and learning. The term *Trividha Jnanopaya* (often spelled *Trividha Gyanaopaya*) is a compound Sanskrit term. The compound can be broken down into three core Sanskrit roots: Trividha + Jnana + Upaya.

According to the Shabdakalpdruma, the term Trividha Jnanopaya can be understood through the etymological analysis of its three constituent terms: Trividha, Jnana, and Upaya. The term Trividha (त्रिविध) is identified as a *Bahuvrihi Samasa* and is explained as "*trayah prakara asya iti trividhah*," referring to that which possesses three distinct forms, modes, or varieties. The word *vidha* is derived from the verbal root *vidh* (विध्), meaning *vidhane* to arrange, dispose, classify, or measure. Thus, *Trividha* denotes *prakaratrayatukam*, signifying something essentially characterized by a threefold classification or tripartite arrangement. The term *Jnana* (ज्ञान) is derived from the verbal root *jna* (ज्ञ), meaning *jnane* to know, cognize, or perceive, combined with the nominalizing suffix *lyut*, which transforms it into the abstract state or act of knowing. The lexicon describes it through synonymous expressions such as *Avabodha* (comprehension), *Pratiti* (cognition), and *Caitanya* (conscious awareness). It further defines *Jnana* as *padartha-tattva-jnanam*, meaning the precise realization of the essential truth (*tattva*) of an object or reality. It represents the illuminating force that dispels ignorance (*Ajnana*). The term *Upaya* (उपाय) is formed from the prefixes *upa* (towards, near) and *a*, combined with the verbal root *i* meaning "to go" or "to approach," along with the suffix *ghan*, which converts the verbal action into a noun. It is defined as "*upayate sadhyate anena iti upayah*," meaning that by which a



desired objective is systematically approached and successfully attained. It is understood as *karanam* (effective cause) or *sadhanam* (instrumental means), denoting a strategic method or precise tool for accomplishment.¹

When synthesized through the interpretative framework of the *Shabdakalpadruma*, Trividha Jnanopaya may be understood as a systematically structured threefold methodology or strategic means employed for attaining illumination, realization of essential truth, and higher knowledge-consciousness.

According to Monier-Williams Sanskrit-English Dictionary

- Trividha: Defined as "of three kinds, threefold, triple."
- Jnana: Defined as "knowing, knowledge, sacred knowledge, cognitive power."
- Upaya: Defined as "that by which one reaches an aim; a means, expedient, way, stratagem."
- In standard classical Sanskrit grammar, this forms a *Genitive Tatpurusha* compound (Jnanasya) Upayah — the means of knowledge), qualified by the adjective *Trividha*. Thus, it translates generally to "The three distinct paths or methods used to attain comprehension or truth."²

Trividha Jnanopaya is an important pedagogical concept described in the Charaka Samhita, particularly in *Vimana Sthana*, where it is explained as the threefold means of acquiring knowledge. It comprises Adhyayana (self-study), Adhyapana (teaching), and Tadvidya Sambhasha (scholarly discussion). Together, these three methods form a systematic educational framework for effective learning and knowledge transmission.³

This classical model reflects a structured approach to teaching and learning that closely aligns with modern educational principles such as self-directed learning, guided instruction, and collaborative academic discourse. Its pedagogical relevance highlights the depth of Ayurvedic educational philosophy and demonstrates its enduring applicability across time. Therefore, the present review systematically explores the conceptual dimensions of *Trividha Jnanopaya* and examines its significance in the context of contemporary teaching-learning methodologies.³

Modern pedagogy in medical education is predominantly learner-centered and competency-based, focusing not only on knowledge acquisition but also on the development of practical skills, professional attitudes, critical thinking, and lifelong learning abilities. In this context, *Trividha Jnanopaya* offers a valuable classical framework that resonates with these educational objectives, emphasizing comprehensive intellectual development through systematic study, guided instruction, and scholarly discussion.

METHODOLOGY

This study adopts a scoping literature review design to explore Ayurvedic teaching-learning methodology. It integrates perspectives from classical Ayurvedic literature and contemporary educational theories to identify conceptual parallels and assess their relevance in present-day pedagogy. The primary sources include the foundational Ayurvedic texts Charaka Samhita, Sushruta Samhita, Ashtanga Sangraha, and Ashtanga Hridaya reviewed alongside peer-reviewed English-language medical education literature retrieved from PubMed

and Scopus published within the last five years. The literature search employed keywords such as *education*, *teaching-learning methods*, *instructional methodology*, *Bloom's taxonomy*, and *Miller's pyramid*. Systematic textual analysis was conducted to extract conceptual insights related to Trividha Jnanopaya, with emphasis on its educational significance. An analytical framework was developed to compare Ayurvedic pedagogical constructs Adhyayana (self-learning), Adhyapana (teaching), and Tadvidya Sambhasha (scholarly discussion) with established modern educational models. The findings were synthesized through concept mapping and thematic analysis to identify functional parallels between classical Ayurvedic epistemology and contemporary teaching-learning frameworks.

This review highlights the continuing pedagogical relevance of Ayurvedic educational philosophy and its potential application in strengthening innovative, learner-centered approaches in modern medical education.

RESULT

TRIVIDHA JANANOPAYA

1. Adhyayana vidhi

This represents the first stage of Trividha Jnanopaya, which focuses on the foundational process of learning and understanding. Under Adhyayana Vidhi (the method of study), an individual aspiring to acquire Ayurvedic knowledge (*Ayurveda-artha purusha*) is first advised to critically examine the authoritative scientific text through rational analysis. This examination should be preceded by a careful assessment of one's own intellectual and physical capability, the feasibility and difficulty of the undertaking (*karya guru-laghavam*), the immediate and intended outcomes of study (*karma-phala* or *tadvik-phala*), the long-term benefits and future implications (*anubandha* or *ayatiya phala*), and the suitability of time and place (*desha* and *kala*).³

These factors are emphasized because individuals who perceive the study of *SHAstra* as a burden, lack genuine interest in its outcomes, or are physically or mentally incapable of completing comprehensive study such as those impaired by advanced age or diminished capacity are considered unsuitable to pursue the rigorous path of becoming a physician. Thus, Ayurveda places strong emphasis on preparedness, commitment, and discernment as essential prerequisites for meaningful learning. After carefully understanding these factors and applying rational analysis (*Yukti Darshanat*) along with proper comprehension of cause-and-effect relationships (*Upapatti Darshanat*), an individual who genuinely aspires to become a physician (*Bhishak Bubhuksu*) should then critically examine and undertake the study of the *Shastra*.

Shastra guna³

Numerous medical treatises have been in circulation throughout the world. Among these, an aspiring student of Ayurveda should carefully select and adopt only that text which possesses the eighteen essential qualities (*Ashtadasha Gunas*) described in the classical literature. These qualities ensure the authenticity, comprehensiveness, clarity, and pedagogical effectiveness of the text, thereby making it suitable for systematic study and professional development. These eighteen qualities may be understood under the following domains:



1. Academic Credibility and Lineage (*Parampara*)

The text should be studied and followed by renowned and wise scholars (*yashasvi-dhira-purusha-sevitam*), honored and validated by trustworthy authorities (*apta-jana-pujitam*), rooted in the teachings of ancient seers and authentic tradition (*arsham*), and supported by a sound foundational basis (*svadharam*).

2. Content Depth and Philosophical Substance (*Artha*)

It should be comprehensive in scope (*sumahat*), rich in essential meaning (*artha-bahulam*), primarily directed toward the determination of factual truth (*artha-tattva-vinishcaya-pradhanam*), and free from unnecessary repetition (*apagata-punarukta-dosham*).

3. Linguistic Quality and Expression (*SHabda*)

The language should be free from degraded or vulgar expressions (*anavapatita-shabdham*), devoid of unnecessarily difficult or harsh wording (*akashta-shabdham*), and enriched with precise and abundant vocabulary (*pushkala-abhidhanam*).

4. Structural Organization and Logical Sequence (*Krama*)

The text should be systematically arranged with well-composed aphorisms, commentaries, and summaries (*supranita-sutra-bhashya-sangraha-kramam*), present concepts in logical sequence (*kramagata-artham*), maintain coherence of meaning (*sangata-artham*), and possess an orderly chapter arrangement free from confusion (*asankula-prakaranam*).

5. Pedagogical Effectiveness and Clarity (*Prabodha*)

It should be beneficial to students of all intellectual capacities (*trividha-shishya-buddhi-hitam*), facilitate rapid understanding (*ashu-prabodhakam*), provide precise definitions and characteristic descriptions (*lakshanavat*), and include appropriate practical illustrations (*udaharanavat*).

The Shastra having these qualities such as a Shastra should be adopted for study, as Acharya compares it to the sun, which dispels darkness and illuminates everything around it. Similarly, a properly arranged and pure text enlightens knowledge and removes ignorance. These qualities highlight the Ayurvedic emphasis on selecting authoritative and well-structured texts that promote clear understanding and effective application of knowledge.

Adhyayana vidhi³

The proper Adhyayana Vidhi (method of study) has been systematically explained by the Acharyas as an ideal protocol for disciplined learning. According to this method, a student who is physically and mentally fit (*kalyah*) should dedicate a fixed time for study by setting aside all other duties and distractions (*kṛta-kshanah*). Study should begin early in the morning after waking, preferably during the dawn or twilight hours (*pratar-utthaya/upavyusham*), as these periods are considered conducive to concentration and clarity of thought.

After completing essential daily routines and performing ablutions (*avashyaka karma* and *upaspr̥shya udakam*), the student should offer salutations to deities, sages, cows, Brahmins, teachers, elders, accomplished scholars, and preceptors (*deva-rishi-go-brahmana-guru-vṛddha-siddha-acarya*), signifying humility and reverence for the lineage of knowledge. Thereafter, the student should sit comfortably in a clean, peaceful, and level place (*shucau deshe sukhopavishtah*) suitable for focused study.

With complete mental concentration and disciplined recitation, the learner should repeatedly study the text line by

line (*sutram anukraman punah punah*), revising it until proper understanding is attained. The student must deeply contemplate the true essence of the subject (*artha-tattva*) to remove personal intellectual shortcomings (*swadosha pariharartha*) and to develop the ability to critically evaluate the strengths and weaknesses of differing viewpoints (*para dosha pramanartha*).

This process of study should be practiced regularly at midday, afternoon, and night, without negligence or interruption, thereby cultivating continuous mastery of the science. Thus, Adhyayana Vidhi reflects Ayurveda's emphasis on disciplined repetition, reflection, reverence, and critical understanding as the foundation of effective learning.

Patha, Avabodha and Anushthana⁵

Acharya vagbhatta in ashtanga hridayam repeatedly emphasizes that true medical excellence or knowledge arise not from mere memorization nor from superficial knowledge, but from harmonious integration of 3 essential process. Patha, avabodha and anushthana are the 3 essential stages of learning in Ayurveda. This 3 step process remains a fundamental model for holistic education in Ayurveda today.

Through the systematic recitation, comprehension, and practical application (*patha-avabodha-anushthana*) of the clinical teachings described in the Ashtanga Hridaya, a physician is said to attain long life (*dirghajivitam*), health (*arogya*), righteousness (*dharma*), prosperity (*artha*), happiness (*sukha*), and reputation (*yashah*).

Among these stages, **Patha** represents the initial phase of learning, primarily focused on memorization through repeated reading and oral recitation. Arunadatta, in his commentary on the *Ashtanga Hridaya*, explains that a student should study the text to such an extent that it is firmly retained "in the throat" (*adhiyanaha kanthe dadhat*), implying complete internalization through constant repetition. He further emphasizes that diligent study should continue throughout the entire span of human life. Arunadatta also clarifies that in the present age, the practices of attentive listening (*shravana*), reflection (*cintana*), understanding (*avabodhana*), and practical application (*anushthana*) have become increasingly rare. Therefore, continuous and disciplined study is essential. Thus, Patha is understood as a lifelong, repetitive process supported by memorization, serving as the indispensable foundation for deeper understanding and effective application of knowledge.

Avabodha represents the stage of intellectual understanding, where the student progresses beyond mere memorization to attain deeper comprehension of the concise and subtle meanings embedded in the text. It involves understanding the special, hidden, and essential meanings of the treatise (*granthartha-vishesha-shesha-vastattva-bodha*), enabling the learner to grasp both the explicit and implied significance of the subject matter. This understanding must be holistic and comprehensive across the entire Ayurvedic corpus. As explained in the *Ashtanga Hridaya*, one who studies only the *Charaka Samhita* may know merely the names of diseases described in the *Sushruta Samhita* (*sanjna-matra-avabodha*), but may lack understanding of their causes (*hetu*), clinical features (*linga*), and treatment principles (*upakrama*). Likewise, one who studies only the *Sushruta Samhita* may gain knowledge of surgical methods but remain deficient in the foundational theoretical principles extensively discussed in the *Charaka Samhita*. Therefore, a sincere student should cultivate



an inclination toward all authoritative branches of knowledge. Avabodha requires freedom from intellectual prejudice, openness to multiple sources of learning, and a willingness to engage deeply with all authentic texts to achieve complete and integrated understanding.

Anushtana is the final and most crucial stage of learning, where acquired knowledge is translated into practical application. At this stage, the student applies the theoretical understanding developed through the earlier stages of Patha and Avabodha to real-world clinical and practical situations. It represents the transformation of knowledge into skillful action, ensuring that learning is not merely retained intellectually but effectively implemented in professional practice.

Vakyasha, Vakyartha And Arthavayavasha³

Charaka sets up a brilliant three-step intellectual framework for how a physician must hold knowledge in their mind. Rote learning is only the first step; it must be backed by deep semantic and structural decomposition. And when questioned or cross-examined by an expert, the student must articulate and explain the medical knowledge in its absolute entirety, without omitting anything. They must be capable of delivering it verbatim sentence-by-sentence (Vakyasha), explaining the comprehensive meaning of those sentences (Vakyarthasha), and method of understanding difficult or condensed textual meanings by analyzing and reconstructing their individual constituent parts (Arthavayavasha).

Vakyasha represents the structural layer of syntax and textual accuracy, referring to the ability to precisely recall and recite the exact words of the scientific text (*Sutra*) composed by *Rishis*. This ensures that the foundational principles are preserved in their original form, exactly as intended by the ancient seers, without distortion, omission, or lapses of memory.

Vakyarthasha represents the semantic understanding and interpretation of the text. Mere memorization is incomplete unless the student comprehends the intended meaning and can explain how individual words combine logically to express a complete clinical principle. This deeper understanding is attained through methods such as elaboration (*Vyasa*), concise expression (*Samasa*), proposition (*Pratijna*), reasoning (*Hetu*), example (*Udaharana*), application (*Upanayana*), and conclusion (*Nigamana*), supported by analytical reasoning (*Yukti Pramana*), which connects the statement with previously learned concepts for comprehensive understanding. The explanation should be systematic and clear enough to be understood by all three categories of students (*Trividha shishya Buddhi Gamana*). Thus, Vakyartha reflects a logical and structured mode of explanation, often expressed through the framework of Pancavayava Vakya.

Arthavayavasha represents the interpretative method by which difficult and condensed portions of a treatise become intelligible through repeated reflection and analysis of their individual components. Classical texts often employ compact and elliptical expressions in which grammatical connections remain implied rather than explicitly stated, thereby creating *artha-durga* that is the subtle semantic obscurity that is not immediately resolved by surface reading. Such obscurity is

removed through careful reconsideration of each textual element and by reconstructing the internal relation between the expressed and omitted parts so that the intended meaning becomes fully manifest. A clear example of this is found in the phrase "*sharira-cheshta ya cheshta sthairyarth bala-vardhini*." Here, the repetition of the word *cheshta* creates an interpretative difficulty, since its precise semantic role is not directly obvious. The difficulty is resolved by analytically breaking down the expression and understanding the second *cheshta* through explanatory reconstruction, where it is interpreted in the sense of *ishta* (desirable or appropriate activity). Through this process, the condensed statement is clarified as referring to bodily activity that is purposeful, promotes stability, and enhances strength. Thus, Arthavayavashah demonstrates how deeper textual meaning is unfolded by dissecting and reassembling difficult expressions according to their grammatical and semantic structure, allowing precise comprehension of the author's intention.

2. Adhyapana vidhi

This stage emphasizes the importance of teaching (*Adhyapana*) as an essential means of knowledge transmission. It involves the teacher systematically explaining the subject to the student, ensuring that knowledge is communicated accurately, clearly, and meaningfully. For the teacher, the process of imparting knowledge not only facilitates the student's learning but also deepens and reinforces their own understanding through reflection and repeated exposition.

Guru guna^{3,4}

For effective teaching, Ayurveda describes the essential qualities of a Guru (*Guru Guna*) which ensure effective transmission of knowledge and proper guidance of students. Such a teacher should possess flawless and purified scriptural knowledge (*pariyavadata-shrutam*), practical clinical experience (*paridrshta-karmanam*), skill and efficiency (*daksham*), uprightness and compassion (*dakshinam*), and purity in conduct and character (*shucim*). The teacher should have mastery and steadiness in practical procedures (*jita-hastam*), be equipped with essential instruments and resources (*upakaranavantam*), and possess healthy and fully functional sense faculties (*sarvendriyopapannam*).

Further, the teacher should have knowledge of individual constitution and disposition (*prakrtijnam*), presence of mind and sound judgment in critical situations (*pratipattijnam*), and authentic, undistorted knowledge (*anupaskrta-vidyam*). Freedom from ego (*anahankrtam*), jealousy (*anasuyakam*), and anger (*akopanam*), along with endurance toward hardships (*klesha-kshamam*), are equally essential virtues.

Above all, the teacher should be affectionate toward students (*shishya-vatsalam*), capable of systematic teaching (*adhyapakam*), and able to communicate complex concepts clearly and effectively (*jnapana-samartham*). Just as a seasonal cloud raining over fertile land quickly yields a rich, high-quality crop, a teacher with these qualities swiftly transforms an excellent disciple into a highly accomplished physician.

Shishya guna^{3,4}

Before imparting knowledge, the teacher who is fully committed to teaching should first carefully examine the



qualities of the student (*Shishya Guna*), as proper learning depends upon the worthiness and preparedness of the learner.

An ideal student should possess calmness and serenity (*prashantam*), noble disposition (*aryaprakṛtikam*), humility free from ego (*anahankṛtam*), patience without anger (*akopanam*), modesty and self-control (*nibhṛtam*), and freedom from bad habits (*avyasaninam*). The student should also be intelligent (*medhavinam*), endowed with reasoning and memory (*vitarka-smṛti-sampannam*), broad-minded (*udarasattvam*), deeply committed to truth (*tattvabhiniveshinam*), and capable of reflecting on deeper meanings (*arthatattvabhavakam*). Ethically, the student should be devoted to good conduct, purity, and discipline (*shila-shauca-acara-anuraga*), desire the welfare of all beings (*sarvabhutahitaishinam*), remain free from greed (*alubdham*), and ideally belong to or live according to the tradition of learned physicians (*tadvidyakulajam athava tadvidyavṛttam*). Physical fitness is equally essential, including healthy sense organs (*avyapannendriyam*), absence of deformities (*avyangam*), and proper speech faculties. Most importantly, the student should possess fortitude (*dhr̥timantam*), skill and respectful conduct (*dakshya-pradakshinyopapannam*), eagerness for study (*adhyayanabhikamam*), attentiveness during learning and practical demonstrations (*arthavijnane karmadarshane cananyakaryam*), diligence free from laziness (*analamam*), readiness to follow the teacher's instructions, and deep devotion toward the teacher (*anuraktam*).

These qualities reflect Ayurveda's view that true learning requires not only intellectual ability but also discipline, ethical character, physical fitness, and sincere dedication to knowledge.

Adyapana vidhi³

The Timing and Preparation for Initiation

When a student possessing the ideal qualities approaches a teacher with a desire to learn and please him, the teacher should instruct him on the precise methodology of beginning his education. The ritual must be conducted during the auspicious northern solstice (*udagayane*), during the bright fortnight of the lunar cycle (*shuklapakshe*), on a commendable day (*prashaste'hani*) when the moon (*bhagavati shashini*) is in conjunction with favorable constellations like Pushya, Hasta, Shravana, or Ashwini. The cosmic alignments must feature beneficial astrological divisions (*kalyane karane*) and take place during the benevolent hour known as Maitra Muhurta (*maitre muhurte*). For this ceremony, the student must have his head shaved (*munḍah*), observe a fast (*kṛtopavasah*), take a purifying bath (*snatah*), and don saffron-colored robes (*kashayavastra-samvitah*). He must approach the teacher carrying auspicious materials in hand (*sagandhahastah*), including sacrificial firewood (*samidho*), sacred fire (*agnim*), clarified butter (*ajyam*), smearing paste (*upalepanam*), water pots (*udakumbhan*), garlands (*malyadama*), lamps (*dipa*), gold and silver ornaments (*hemarajatamani*), pearls and corals (*muktavidruma*), silken cords (*kshouma-paridhin*), sacred grass (*kusha*), parched rice (*laja*), mustard seeds (*sarshapa*), unbroken grains (*akshatamshca*), pure white flowers (*shuklani sumanamsi*), sacred foods (*medhyam bhakshyan*), and freshly ground aromatic pastes (*gandhamshca*).

The Ritual Fire Sacrifice

The student must carefully follow all preparatory instructions. Once satisfied with the student's readiness, the teacher prepares a square sacrificial altar (*catuskishkumatram caturasram sthandilam*) in a clean and level place facing the east or north. The altar is purified with cow-dung water (*gomayodakena*), spread with sacred Darbha grass (*kushastirnam*), and decorated with auspicious materials such as sandalwood water, flowers, grains, gems, and water vessels. The teacher then kindles the sacred fire using holy woods such as Palasha, Ingudi, Udumbara, or Madhuka, and while seated facing east, offers oblations of honey and ghee (*madhusarpirbhyam*) three times with sacred mantras invoking Brahma, Agni, Dhanvantari, Prajapati, the Ashvini Kumaras, Indra, and the ancient seers. During this ritual, the student remains in physical contact with the teacher as a mark of reverence and transmission of knowledge. After the offerings, both circumambulate the sacred fire clockwise, seek blessings from learned scholars, and offer respect to practicing physicians. This ritual signifies the student's formal initiation into the sacred tradition of Ayurvedic learning.

The Sacred Medical Oath: Code of Conduct

Standing before the sacred fire, the scholars, and the medical fraternity, the teacher solemnly administers the lifelong oath to the student. The disciple is commanded to lead a life of celibacy and self-restraint (*brahmacarina*), grow a beard as a sign of maturity (*shmashrudharina*), speak absolute truth (*satyavadina*), abstain from meat (*amamsadena*), eat only pure, wholesome food (*medhyasevina*), remain entirely free from envy (*nirmatsarena*), and never carry weapons unnecessarily (*ashastradharina*). The student must pledge that no order from the teacher will be disobeyed unless it involves treason against the king (*rajadvishtat*), causes death (*pranaharad*), is highly immoral (*vipulad-adharmyad*), or brings spiritual ruin (*anarthasamprayuktad*). The student must surrender completely to the teacher, making the teacher their primary focus (*madarpenena matpradhanena madadhinena*), acting always in the teacher's favor, and living dutifully like a son, a servant, or a humble petitioner (*putravad-dasavad-arthivaccopacarata*). He must navigate his medical career with humility, alertness, an undivided mind, and deep reflection (*anutsekenavahitena-ananyamanasa vinitena*), performing no clinical act without the express permission of his mentor.

Duties Towards Patients and Society

If the physician wishes for clinical success, wealth, fame, and a place in heaven after death, he must daily pray for the welfare of all living beings, starting with cattle and holy men (*gobrahmanamadau kṛtva sarvapranabhṛtam sharmashasitavyam*). He must dedicate his entire soul to curing the sick (*sarvatmana caturanam-arogayaya prayatitavyam*) and must never harm or betray a patient, even if his own life is at stake (*jivitahetorapi caturebhyo nabhidrogdhavyam*). He must not entertain corrupt thoughts about other men's wives (*manasa'pi ca parastriyo nabhigamaniastaha*) or covet someone else's property. He must dress modestly and soberly (*nibhṛtaveshaparicchadena*), abstain from alcohol (*ashaundena*), avoid sin, and keep away from wicked companions. His speech must be gentle, pure, righteous, pleasing, truthful, beneficial, and measured (*shlakshna-shukladharmya-sharmya-dhanya-satya-hita-mita-vacasa*), and he



must act with full awareness of time and place while constantly upgrading his medical kits and knowledge.

Clinical Boundaries and Professional Ethics

The physician must never prescribe medicine to enemies of the state (*rajadvishtanam*), those hated by the public, or those who display extremely wicked, abusive behavior. He should not treat patients who are already on the verge of death (*mumurshunam ca*), nor should he treat women who are unaccompanied by their husbands or guardians (*asannihiteshvaranam strinam-anadhyakshanam va*). He must never accept gifts or food items from a woman without the explicit consent of her husband or guardian. When entering a patient's house, the physician must be formally invited, be accompanied by a known person, keep his head bowed down respectfully (*avakshirasa*), maintain a calm presence, and act with extreme mindfulness. Once inside, his words, thoughts, intellect, and senses must be exclusively focused on the patient and their recovery (*anyatratrad-aturopakararthad*), and he must never disclose domestic secrets or affairs of the patient's household to the outside world (*na caturakulapravrttayo bahirnishcarayitavyah*). Even if the physician foresees that a patient's lifespan is coming to an end (*hrasitam cayusho pramanam*), he must never speak of it openly if doing so would cause emotional shock or harm to the patient or their family. Finally, no matter how profoundly knowledgeable the physician becomes, he must never boast about his wisdom (*na-atyartham-atmano jnane vikatthitavyam*); for even when a highly trustworthy expert brags arrogantly, it causes irritation and distress to everyone around them.

Thus, Adhyapana Vidhi establishes teaching as a sacred process of accurate knowledge transmission from teacher to student. It emphasizes discipline, ethical conduct, and clarity of instruction to ensure the preservation of authentic Ayurvedic

wisdom. Through this method, knowledge is not merely communicated but cultivated, shaping the student into a competent and responsible physician.

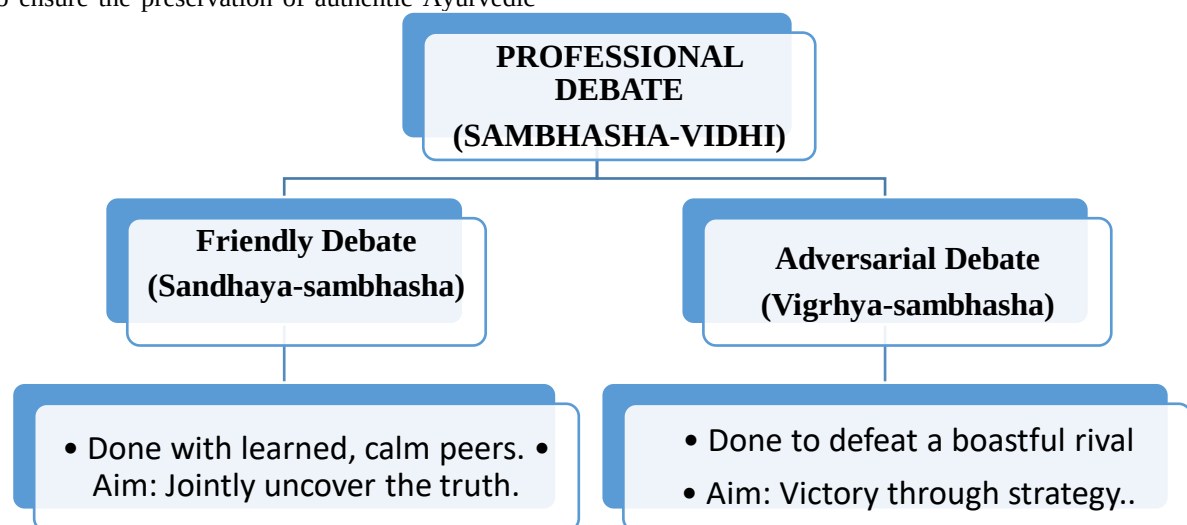
3. Tadvidya sambhasha³

This is the final and arguably most crucial stage involves engaging in scholarly discussions, debates and conferences with other experts in the field. the purpose of this stage is to critically analyse, rectify errors and enrich existing knowledge. The method allows for the continuous evolution and refinement of ayurvedic principles through intellectual discourse and peer review. The method of professional discussion (*Sambhasha Vidhi*) is regarded as an essential component of Ayurvedic learning. Charaka Samhita advises that a physician should engage in scholarly discussion with fellow physicians (*bhishak bhishaja saha sambhasheta*), as Tadvidya Sambhasha stimulates enthusiasm for knowledge, sharpens intellect, enhances clarity and confidence, refines communication skills, and brings professional recognition.

Such discussions help resolve doubts regarding previously learned concepts through re-evaluation, strengthen conviction in established knowledge, and reveal new insights that were previously unknown. Moreover, profound and subtle principles (*guhyabhimatam arthajatam*), which a teacher may disclose gradually over time, often emerge fully during active scholarly debate. Therefore, professional discussions are highly praised, as they promote deeper understanding, intellectual refinement, and the advancement of scientific knowledge.

The Two Types of Debates

Professional discussion is broadly divided into two distinct categories: amicable or collaborative discussion (*sandhaya-sambhasha*) and hostile or adversarial debate (*vigrhya-sambhasha*).



An amicable discussion (*Sandhaya Sambhasha*) should be held with a scholar who possesses sound scriptural knowledge, scientific understanding, eloquence, patience (*akopanena*), pure knowledge (*anupaskṛta-vidyena*), freedom from envy (*anasuyakena*), persuasive ability (*anunaya-kovidena*), and endurance (*klesha-kshamena*).

Such discussion should be conducted with confidence and mutual trust (*visrabdhah katheyet*), where questions are asked freely and answered with clarity (*vishadam artham bruyat*). There should be no fear of defeat, pride in victory, dogmatic attachment, or explanation of poorly understood concepts. Instead, discussion should proceed through gentle



reasoning and alertness. This is known as the agreeable method of discussion (*Anuloma Sambhasha Vidhi*).

Adversarial Debate and Pre-Debate Assessment

A physician should engage in adversarial debate (*Vigraha Sambhasha*) only when it is likely to bring professional benefit. Before entering such a discussion, one must carefully assess the opponent's strengths and weaknesses (*paravara-antaram*) as well as the nature of the assembly (*parishad-vishesh*), as this determines whether to proceed or withdraw (*karya-pravrtti-nivrtti*).

The qualities that support success in debate include scriptural knowledge (*shrutam*), scientific understanding (*vidyanam*), retention (*dharanam*), presence of mind (*pratikhyam*), and eloquence (*vacana-shakti*). In contrast, anger (*kopanatvam*), lack of confidence (*avaisharadyam*), fearfulness (*bhirutvam*), poor memory (*adharanatvam*), and inattention (*anavadhitatvam*) weaken a debater. By comparing these qualities in oneself and the opponent, one can determine whether the opponent is superior (*pravara*), inferior (*pratyavara*), or equal (*sama*), and act accordingly.

Classification of Assembly and Debate Strategy

The assembly (*Parishat*) in which debate occurs is classified as either learned (*Jnanavati*) or ignorant (*Mudha Parishat*), and each may further be friendly (*Suhrt*), neutral (*Udasina*), or hostile (*Pratinivishita*). Debate should never be undertaken in a hostile assembly, whether learned or ignorant. However, discussion may be pursued in a friendly or neutral assembly, even against a less competent opponent.

In an ignorant assembly, a debater may strategically employ complex expressions (*avidha-dirgha-sutra-sankula-vakya*) and rhetorical dominance to overpower an opponent. Yet, classical authorities discourage hostile debate with a superior scholar, as it rarely yields constructive outcomes.

When debating an inferior or equal opponent, one should carefully observe their strengths and weaknesses. If the opponent lacks scriptural knowledge (*shruta-hina*), they may be challenged through extensive textual references; if deficient in understanding (*vidyana-hina*), difficult technical reasoning may be applied; if weak in memory (*dharana-hina*), lengthy arguments may confuse them; and if lacking presence of mind (*pratikhyana-hina*) or eloquence (*vacana-shakti-hina*), subtle wordplay and timely interruption may expose their limitations. Similarly, fearfulness, anger, lack of confidence, or inattention can be tactically addressed through psychological pressure.

Despite such strategies, Charaka emphasizes that debate must always remain guided by reasoning (*Yukti*). Hostile argument often leads to anger and enmity, and an angry person loses judgment and restraint. Therefore, wise scholars avoid quarrelsome exchanges. If discussion becomes unproductive, the physician should withdraw gracefully, allowing the assembly to decide the matter and maintaining silence (*tushnim asita*), thus preserving dignity and scholarly decorum.

Thus, Tadvidya Sambhasha represents a vital pedagogical method in Ayurveda that sharpens intellect, refines reasoning, strengthens communication skills, and promotes deeper understanding through scholarly interaction. It reflects the classical emphasis on dialogue as an essential tool for validating knowledge and cultivating professional competence.

Modern Pedagogical Methods of Teaching and Learning

Modern pedagogy in medical education is learner-centered and competency-based, aiming not only at knowledge acquisition but also at skill development, professional attitude formation, critical thinking, and lifelong learning.^{10,15} It is broadly structured around three domains of learning described by Bloom and further applied in medical education through competency frameworks such as Miller's Pyramid.⁸

1. Cognitive Domain (Knowledge and Intellectual Development)

The cognitive domain focuses on the development of knowledge, understanding, reasoning, and problem-solving abilities. Bloom classified this domain into progressive levels:^{7,8}

- **Remembering** – Recall of facts and concepts
 - **Understanding** – Explaining ideas and interpretations
 - **Applying** – Using knowledge in practical situations
 - **Analyzing** – Breaking information into parts for logical understanding
 - **Evaluating** – Judging based on evidence and reasoning
 - **Creating** – Producing new ideas or solutions
- Modern methods used to develop the cognitive domain include:^{10,13,20}
- **Lecture-based learning:** Structured delivery of foundational concepts
 - **Case-based learning (CBL):** Application of theoretical knowledge to clinical scenarios
 - **Problem-based learning (PBL):** Student-driven exploration of real-world problems
 - **Self-directed learning (SDL):** Independent study and resource utilization
 - **Reflective learning:** Critical analysis of one's learning experiences
 - **Concept mapping:** Visual organization of concepts to improve integration and understanding

This domain ensures intellectual mastery and clinical reasoning.^{15,16}

2. Affective Domain (Attitudes, Values, and Professionalism)

The affective domain deals with emotional development, ethical behavior, professional attitudes, empathy, and values. Bloom described its levels as:^{7,8}

- **Receiving** – Awareness and willingness to learn
- **Responding** – Active participation
- **Valuing** – Acceptance of professional values
- **Organizing** – Integrating values into practice
- **Characterizing** – Internalizing values as habitual behavior

Teaching strategies for affective development include:^{10,12,18}

- **Role modeling by faculty**
- **Mentorship programs**
- **Ethics discussions and reflective writing**
- **Group discussions and debates**
- **Peer learning and collaborative tasks**
- **Professional behavior assessment**

This domain is essential for developing compassion, responsibility, communication skills, and ethical clinical conduct.^{16,18,19}



3. Psychomotor Domain (Skill Acquisition and Performance)

The psychomotor domain involves practical, technical, and procedural skills required for clinical competence. It progresses from observation to mastery.^{9,12}

- **Observation** – Watching demonstrations
- **Imitation** – Repeating under guidance
- **Practice** – Repeated execution
- **Precision** – Performing accurately
- **Articulation** – Integrating multiple skills
- **Naturalization** – Automatic expert performance

Methods used include:^{9,10,12}

- **Clinical demonstrations**
- **Simulation-based training**
- **Skill laboratories**
- **Hands-on practice**
- **Objective Structured Clinical Examination (OSCE)**
- **Apprenticeship-based bedside teaching**

This domain ensures procedural expertise and confidence in clinical execution.

Miller's Pyramid in Modern Medical Learning

Modern competency-based education evaluates learners through Miller's Pyramid, which progresses through four levels:^{9,10,19}

- **Knows** – Possesses factual knowledge
- **Knows How** – Understands application
- **Shows How** – Demonstrates performance
- **Does** – Performs independently in real practice

This framework emphasizes transition from theoretical learning to clinical competence.

Student-Centered Teaching Approaches

Modern pedagogy strongly promotes active participation through:

- **Flipped classroom learning** – Pre-class study followed by discussion
- **Interactive seminars** – Two-way academic engagement
- **Collaborative learning** – Peer-supported understanding
- **Blended learning** – Integration of online and classroom instruction
- **Technology-enhanced learning** – Digital simulations, virtual cases, e-learning platforms

These methods encourage autonomy, critical inquiry, and continuous engagement.^{11,13,14}

Assessment Strategies in Modern Pedagogy

Assessment is formative and summative, focusing on continuous improvement.^{10,12,18,19}

Formative assessment:

- Quizzes
- Feedback sessions
- Reflective assignments
- Peer assessments

Summative assessment:

- Written exams
- Practical examinations
- Viva voce
- OSCE/OSPE

Assessment now prioritizes competency demonstration rather than rote memorization.^{9,19}

Modern Teaching–Learning Methods and Their Correlation with Ayurveda

Contemporary medical education recognizes three domains of learning: the cognitive domain (knowledge and intellectual skills), the affective domain (attitudes, values, and professional behavior), and the psychomotor domain (practical and procedural skills).^{7,10} These domains collectively ensure the development of a learner.

A similar framework is inherently present in Ayurvedic teaching methodology. Adhyayana primarily corresponds to the cognitive domain, as it emphasizes systematic study, memorization, comprehension, and analytical understanding of concepts. Adhyapana aligns with both the cognitive and affective domains, since teaching reinforces conceptual mastery while cultivating discipline, humility, responsibility, and ethical conduct in both teacher and student. Tadvidya Sambhasha integrates the cognitive and affective domains by promoting critical thinking, intellectual clarity, respectful discourse, and professional confidence through scholarly discussion.

The psychomotor domain is reflected through Anushtana, where theoretical knowledge is translated into practical clinical application. Thus, the Ayurvedic model of Trividha Jnanopaya demonstrates a comprehensive educational structure that closely parallels modern learning theories, highlighting its continuing relevance in contemporary medical education.

Ancient Ayurveda education reflected the core values of modern pedagogy - curiosity, reasoning, and experiential learning. The Samhitas envisioned an integrated system combining knowledge, practice, and ethics. Hence, these methods remain relevant in modern competency-based Ayurveda education.

Lacunae, Advantages, and Scope for Improvement in Ayurvedic and Modern Teaching–Learning Methods

Ayurvedic Teaching–Learning Method

Advantages:

- Promotes holistic learning through integration of memorization (*patha*), understanding (*avabodha*), and practical application (*anushtana*).
- Encourages self-discipline, ethical conduct, and lifelong learning through *Guru–Shishya parampara*.
- Strengthens critical reasoning and intellectual dialogue through *Tadvidya Sambhasha*.
- Emphasizes personalized mentorship and character development alongside academic knowledge.

Lacunae

- Limited standardization and objective assessment methods.
- Strong dependence on teacher expertise may create variability in knowledge transmission.
- Traditional methods may lack structured competency-based evaluation for large institutional settings.
- Limited integration of technology-enhanced and evidence-based instructional tools.



Scope for Improvement

- Incorporate digital learning platforms, simulation-based teaching, and standardized assessments.^{12,18}
- Develop competency-based Ayurvedic curricula while preserving traditional pedagogy.
- Strengthen interdisciplinary integration with modern educational sciences.^{15,16}

Modern Teaching–Learning Method

Advantages:

- Structured and measurable through frameworks such as Bloom's Taxonomy and Miller's Pyramid.
- Encourages competency-based education, objective assessment, and evidence-based pedagogy.
- Supports technology-enhanced learning, simulations, and interactive methodologies.
- Suitable for large-scale institutional teaching and standardized professional training.

Lacunae:

- Often focuses more on technical competency than ethical and character formation.
- Teacher–student relationships may lack depth due to institutional formalization.
- Excessive assessment orientation can reduce reflective and self-directed learning.
- Sometimes fragmented, emphasizing skills over philosophical understanding.

Scope for Improvement:

- Integrate value-based mentorship and reflective learning inspired by Ayurvedic pedagogy.
- Encourage deeper dialogical learning rather than examination-centered teaching.
- Balance competency assessment with professional ethics and holistic development.

Comparative Insight

Ayurvedic pedagogy emphasizes wisdom, ethical transformation, and experiential understanding, whereas modern pedagogy prioritizes structured competency, scalability, and measurable outcomes. Integrating both systems can create a balanced learner-centered medical education model combining traditional depth with contemporary scientific rigor.

DISCUSSION

The present review shows that Trividha Jnanopaya, as outlined in classical Ayurvedic texts, is a systematic and comprehensive educational framework that remains pedagogically relevant to modern medical education. Its three components Adhyayana, Adhyapana, and Tadvidya Sambhasha together form an integrated model for acquiring, transmitting, refining, and applying knowledge, reflecting a depth of educational philosophy that aligns with contemporary learner-centered and competency-based approaches.

Adhyayana emphasizes disciplined self-study, intellectual readiness, rational analysis, and repeated reflective learning. These practices parallel modern self-directed learning, reflective practice, and cognitive development described in Bloom's taxonomy. The classical focus on evaluating one's capability, contextual feasibility, and long-term outcomes mirrors modern metacognitive and self-regulatory theories. Repetition through Patha, Avabodha, and Anushthana maps

onto the progression from remembering and understanding to application and mastery.

Vakyasha, Vakyarthasha, and Arthavayavasha reinforce this progression by stressing textual precision, semantic comprehension, and analytical breakdown processes akin to analysis, synthesis, and evaluation indicating that layered cognitive development was anticipated in Ayurvedic pedagogy.

Adhyapana centers the teacher student relationship as essential for authentic knowledge transfer. Beyond curriculum delivery and measurable outcomes, it emphasizes ethical formation, discipline, and personal transformation. The detailed Guru Guna and Shishya Guna outline an educational ecology where teacher competence and student preparedness are prerequisites for meaningful learning. Initiation rituals and ethical vows show that Ayurveda framed education as moral and professional formation, resonating with modern concerns about professionalism and identity formation in medical training.

Tadvidya Sambhasha the scholarly dialogue and debate serves as a dynamic mechanism for clarification, critical inquiry, and refinement of knowledge. Its distinction between cooperative (Sandhaya) and adversarial (Vigryha) debate demonstrates a nuanced approach to epistemic engagement, paralleling collaborative learning, case discussion, and peer-assisted methods used today. Classical guidelines on assessing opponents and assembly dynamics reveal sophisticated cultivation of communication and critical-thinking skills, comparable to modern evidence-based discussion and clinical reasoning forums.

Comparatively, Trividha Jnanopaya corresponds well with modern frameworks such as Bloom's taxonomy and Miller's pyramid: Adhyayana supports knowledge acquisition (Knows), Adhyapana fosters applied understanding (Knows How), and Tadvidya Sambhasha with Anushthana enables demonstration and performance (Shows How/Does). Thus, Ayurvedic pedagogy inherently anticipates competency progression later formalized in contemporary medical education.

Limitations include a lack of standardized, scalable assessment methods and dependence on individual teacher expertise, which can introduce variability and hinder integration with rapidly evolving scientific evidence and technology. Conversely, modern systems though measurable and scalable often lack Ayurveda's depth of mentorship, ethical immersion, and reflective cultivation, and may overemphasize superficial assessment-driven outcomes.

Integrating Trividha Jnanopaya with modern educational science through digital learning, simulation-based training, structured competency assessments, and evidence-informed pedagogy could yield a balanced model that combines traditional intellectual depth with contemporary rigor and scalability.

CONCLUSION

Trividha Jnanopaya represents a profound and systematically organized educational framework that reflects the sophistication of classical Ayurvedic pedagogy. Through its three interconnected dimensions Adhyayana, Adhyapana, and Tadvidya Sambhasha it fosters comprehensive intellectual, ethical, and professional development. The strong conceptual parallels identified between this classical model and modern



competency-based educational frameworks affirm its continuing pedagogical relevance.

The review highlights that Ayurvedic educational philosophy offers enduring insights into learner-centered education, reflective scholarship, ethical mentorship, and dialogical learning. While traditional methods require modernization through standardization, technological integration, and competency-based evaluation, their foundational principles remain highly applicable to present-day medical education.

An integrative educational approach combining the philosophical depth of Ayurveda with contemporary evidence-based teaching methodologies may significantly strengthen medical training by producing not only technically competent physicians but also reflective, ethical, and intellectually mature professionals. Thus, Trividha Jnanopaya remains a timeless educational model with substantial potential for enriching future medical pedagogy.

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