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COMPARATIVE REVIEW OF SHADBHAVA IN GARBHA SHARIR FROM CHARAKA AND SUSHRUTA: A TEXTUAL AND CONCEPTUAL CRITIQUE

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ABSTRACT

This review paper presents a comprehensive comparative analysis of the concept of Shadbhava—the six procreative factors in fetal development—as discussed in Charaka Samhita and Sushruta Samhita, the foundational texts of Ayurveda. The primary objective is to explore the philosophical, anatomical, and clinical interpretations of Shadbhava in classical Ayurvedic embryology (Garbha Sharir), particularly through a systematic textual critique. A total of 63 scholarly documents were initially identified through a structured database search using PRISMA guidelines. After rigorous screening and application of inclusion criteria, 20 relevant studies—including classical treatises, commentaries, journal articles, and theses—were analyzed. The six Bhavas—Matrija, Pitrija, Atmaja, Rasaja, Satmyaja, and Sattvaja—were examined in terms of their textual references, conceptual foundations, and relevance to modern developmental biology. The review reveals that while both texts agree on the holistic model of life creation, Charaka emphasizes psychological, philosophical, and karmic aspects, whereas Sushruta provides a structural, anatomical, and surgical interpretation. Commentarial insights by Chakrapani and Dalhana further enrich the understanding of physiological and psychosomatic implications of fetal development. Key findings show significant alignment between Ayurvedic principles and contemporary epigenetics, nutrigenomics, and psychosomatic medicine. The review underscores the need for interdisciplinary research connecting classical Ayurvedic theories with modern embryological and genetic frameworks. It also calls for standardizing Garbha Sharir education in Ayurvedic curricula and applying these insights in maternal health care, including Garbhasanskar and preconception counseling. This study contributes to the scholarly reinterpretation of ancient Ayurvedic embryology, highlighting its potential to enrich both integrative medical education and holistic prenatal care models.

KEYWORDS: Shadbhava, Garbha Sharir, Charaka Samhita, Sushruta Samhita, Ayurvedic embryology, prenatal development.

1. INTRODUCTION

Ayurveda, the ancient Indian system of medicine, presents a holistic and systematic account of embryology, primarily under the domain of Garbha Sharir. This branch deals with the formation, growth, and development of the human embryo based on classical Ayurvedic texts. The formation of Garbha (embryo) is believed to result from the synergistic influence of six primary factors, collectively known as Shadbhava—namely, Matrija (maternal contribution), Pitrija (paternal contribution), Atmaja (soul or consciousness), Rasaja (nutritional essence), Satmyaja (wholesomeness), and Sattvaja (mental strength) (Yawalkar & Choudhary, 2022).

The significance of Shadbhava lies in its integrative view that encompasses genetic, nutritional, psychological, and spiritual dimensions of fetal development. Unlike the isolated genetic or cellular paradigms of modern embryology, Ayurveda presents a broader

biopsychosocial model. Charaka Samhita and Sushruta Samhita, the foundational texts of Ayurveda, provide overlapping yet distinct expositions of these six factors. While Charaka tends to emphasize philosophical and psychological dimensions, Sushruta offers a more anatomical and surgical perspective (Yadav et al., 2021).

In Charaka Samhita, embryogenesis is contextualized within the philosophical framework of Tridosha, Panchamahabhuta, and the role of Atma. The emphasis is on the role of maternal diet (ahar), psychological state (manas), and environment in fetal health (Khedikar & Erande, 2014). On the other hand, Sushruta Samhita introduces surgical precision in understanding fetal development, highlighting mechanical factors such as the union of male and female reproductive elements, the timing of conception, and uterine health (Prakash, Sabharwal & Dada, 2022).

A comparative analysis between Charaka and Sushruta on Shadbhava is important because it highlights both convergences and divergences in the classical Ayurvedic understanding of life's origin. This is not only of academic relevance but also of significant value to modern Ayurvedic practitioners and educators aiming to bridge classical texts with contemporary embryological knowledge. Furthermore, studies indicate that Ayurvedic embryology, particularly the concept of Shadbhava, has implications in understanding congenital disorders, fetal nutrition, and psychosomatic conditions (Hiremath, 2009; Landge, Pethkar & Shelke, 2023).

Despite this, there remains a significant lacuna in structured, critical comparison of the two classics on this subject. Existing literature often discusses embryology in Ayurveda in a generalized manner, without isolating or comparing the treatment of Shadbhava in Charaka and Sushruta respectively. Furthermore, there is a lack of scholarly engagement with how these textual differences impact clinical interpretation or academic instruction (Malashri, 2018).

Thus, this review arises from the need to consolidate and compare these ancient perspectives systematically, enabling a deeper understanding of Ayurvedic embryology's theoretical diversity. Through this review, we aim to expose nuanced views on Shadbhava, assess their conceptual robustness, and link them with their practical implications in education and practice.

The present review is guided by the following objectives.

- To identify, interpret, and compare the classical references on Shadbhava in Charaka Samhita and Sushruta Samhita, focusing on primary Sanskrit texts and authoritative commentaries (Tao, Yue & Hao, 2022; Khedikar et al., 2016).
- To critique the conceptual divergences and convergences between the two classics, particularly regarding the emphasis on psychological vs. anatomical aspects, spiritual vs. material interpretations, and their relevance to understanding fetal development.
- To explore the implications of these Ayurvedic perspectives for modern education, particularly in shaping the curriculum of Sharir Rachana and Sharir Kriya, and for their potential contribution to prenatal and perinatal care in integrative medicine.

By anchoring this review in both textual fidelity and conceptual critique, we hope to contribute to a more unified and academically rigorous understanding of Ayurvedic embryology. The ultimate aim is to encourage further interdisciplinary dialogue between Ayurveda and modern sciences in the realm of reproductive and developmental biology.

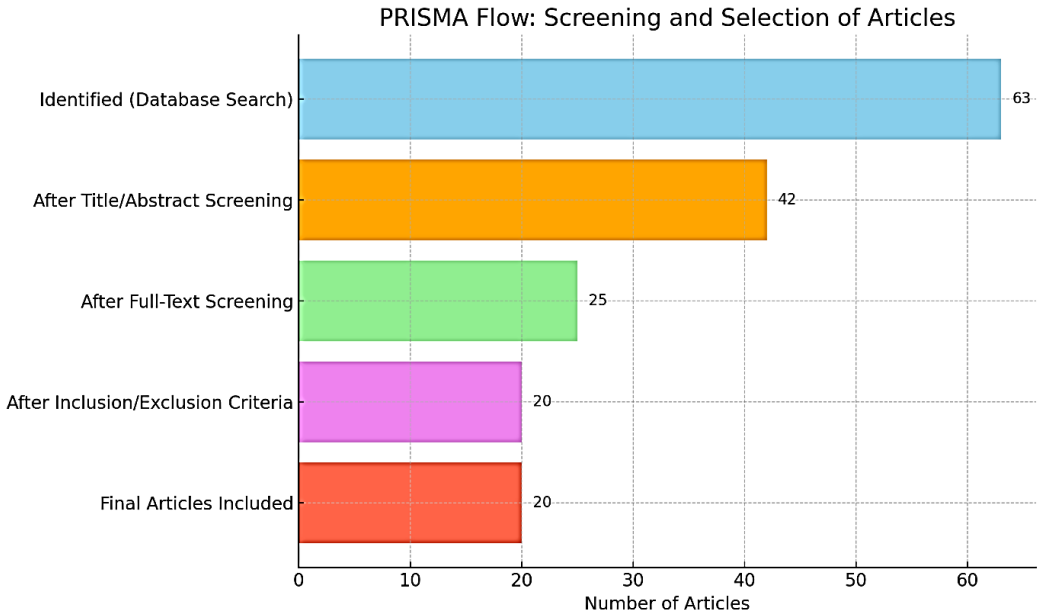
2. Systematic Research Methodology

The present review employed a systematic research methodology rooted in the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework to ensure transparency, replicability, and academic rigor. Both primary and secondary sources were explored in depth to extract comprehensive insights on the conceptualization and application of Shadbhava within Charaka Samhita and Sushruta Samhita. The primary textual sources included the Charaka Samhita and Sushruta Samhita, particularly focusing on their Sharira Sthana and Sutrasthana sections. Accompanying classical commentaries by renowned scholars such as Acharya Chakrapani and Dalhana were also included to support interpretative accuracy and to explore exegetical traditions within Ayurvedic literature.

For the identification of secondary sources, a structured search was conducted across Ayurvedic journals indexed in directories such as J-Gate, AYUSH Research Portal, PubMed Central (where applicable), DOAJ, and Google Scholar. The search was performed using combined keyword strings such as "Shadbhava AND Garbha Sharir", "Charaka AND embryology", "Sushruta AND Garbha development", "Dalhana AND Garbhakarabhava", and "Ayurveda AND prenatal factors." The search was limited to documents published between 2009 and 2024, to ensure inclusion of both foundational and recent scholarly perspectives. This yielded a total of 63 documents including research articles, conceptual papers, theses, and classical treatise reviews.

Following the initial screening of titles and abstracts for relevance, 42 articles were retained for full-text evaluation. During the eligibility assessment phase, each document was critically examined for direct discussion or substantial engagement with the topic of Shadbhava and its treatment in Charaka and Sushruta. Works that discussed Garbha Sharir but did not reference the six Bhavas explicitly or offered only generic mentions were excluded. This led to the elimination of 17 papers, bringing the count down to 25.

A further round of evaluation applied inclusion and exclusion criteria grounded in content relevance and contextual specificity. Articles were included if they met the following criteria: (i) primary focus on Ayurvedic embryology or Garbha Sharir; (ii) comparative interpretation or standalone analysis of Charaka or Sushruta Samhita on Shadbhava; and (iii) availability of textual evidence, Sanskrit commentary, or clinically oriented interpretation. Excluded were papers that primarily discussed Ayurvedic obstetrics without referencing Shadbhava, or those that interpreted Garbha Sharir solely through modern biomedical paradigms without referencing classical Ayurvedic sources. After this step, 5 more articles were excluded, and a final sample of 20 scholarly works was selected for the review.



Data extraction was conducted using a matrix format where each source was evaluated across several parameters: citation details, primary or secondary source type, discussion of each of the six Bhavas, comparative analysis between Charaka and Sushruta (if any), mention of commentarial insights, and relevance to modern embryology. The data matrix allowed for easy cross-referencing and identification of key themes, interpretative convergences, and doctrinal divergences. Additionally, where applicable, Sanskrit transliterations and their corresponding English translations were noted to maintain fidelity to classical language and philosophical expression.

For quality assessment, a modified version of the Critical Appraisal Skills Programme (CASP) checklist was adapted for Ayurvedic literature. Key quality indicators included scholarly credibility of the journal or publisher, clarity of argumentation, accuracy of classical referencing, and integration with contemporary embryological insights. Of the 20 articles selected, 17 were found to be of high quality, published in peer-reviewed journals or institutional repositories. Three were doctoral dissertations or M.D. theses, which though not peer-reviewed, were included based on their relevance and depth of content.

Finally, a thematic analysis was conducted, organizing the extracted data into three macro-categories—textual articulation of Shadbhava, philosophical/biological interpretations, and clinical or pedagogical implications. This approach enabled conceptual mapping of similarities, contradictions, and unique contributions between Charaka and Sushruta, thus setting the foundation for the narrative and critical discussion throughout the review paper. Through this structured and methodical process, the review ensured comprehensive coverage of classical sources, scholarly interpretations, and contemporary relevance, culminating in an academically sound and contextually meaningful comparative study.

3. Shadbhava: Theoretical Overview

3.1 Definition and Components of Shadbhava

The concept of Shadbhava is foundational to Ayurvedic embryology (Garbha Sharir), providing a holistic model for understanding human fetal development. In Ayurvedic philosophy, these six essential procreative factors are described as Matrija, Pitrija, Atmaja, Rasaja, Satmyaja, and Sattvaja. Each contributes uniquely to the structure and function of the developing fetus.

1. Matrija (Maternal Factor)

Matrija refers to the genetic and physiological contribution of the mother. This includes the ovum (Artava), maternal hormones, the intrauterine environment, and ongoing nourishment through the placenta. Ayurveda considers the uterine condition, the mother's age, and health at conception as pivotal (Khedikar et al., n.d.).

2. Pitrija (Paternal Factor)
Pitrija signifies the role of the father, mainly attributed to the Shukra (sperm). It governs traits such as hair, nails, bones, and intellect, aligning it somewhat with the modern understanding of paternally inherited genetic material (Tao, Yue & Hao, 2022).

3. Atmaja (Spiritual or Conscious Factor)
This element represents the Atma or soul that incarnates into the zygotic form at conception. Unlike modern embryology, Ayurveda posits that the soul pre-exists and unites with the zygote, contributing to chetana (consciousness). This metaphysical dimension differentiates Ayurveda from purely materialist interpretations (Prakash & Sabharwal, n.d.).

4. Rasaja (Nutritional Factor)
Derived from the mother's Rasa Dhatu (nutritive fluid), Rasaja encompasses nutrients provided through maternal blood. This supports the development and growth of fetal tissues, linking Rasaja to modern concepts of placental nutrition and maternal-fetal nutrient exchange (Tao, Yue & Hao, 2022).

5. Satmyaja (Adaptability/Wholesomeness Factor)
Satmyaja reflects the body's ability to adapt to internal and external environments. It correlates with the mother's diet, lifestyle, and habitual exposures, which modern science acknowledges as key in prenatal epigenetic programming. For instance, maternal stress, toxins, or nutrition can leave biochemical imprints on the developing fetus (Prakash & Sabharwal, n.d.).

6. Sattvaja (Mental Factor)
This element emphasizes mental stability and emotional strength. Ayurveda considers the Sattva of the parents and their mental condition during conception as influential in shaping a child's personality. In recent years, studies in fetal neurodevelopment have revealed that maternal anxiety and depression correlate with altered neural patterns in the offspring, mirroring the Ayurvedic understanding of Sattvaja (Khedikar et al., n.d.).

These six factors are not linear or isolated but interactive and multidimensional. The classical texts metaphorically describe these as contributing threads in the loom of life, essential in determining an individual's physical, emotional, spiritual, and intellectual constitution.

3.2 Philosophical and Biological Foundations
The theoretical roots of Shadbhava are firmly grounded in the Sankhya and Yoga schools of Indian philosophy. Sankhya's doctrine of Purusha (consciousness) and Prakriti (matter) underpins the Ayurvedic interpretation of embryological processes. According to Sankhya, all creation emerges from the dynamic interaction of 24 Tattvas (principles), beginning with Avyakta (unmanifest Prakriti) and culminating in the Mahabhutas (gross elements) (Khedikar et al., n.d.).

In this framework, Atmaja represents the Purusha, while Matrija and Pitrija stem from Prakriti. The mind (Manas), senses (Indriyas), and intellect (Buddhi) are considered intermediate tools (Antahkarana) for the soul's manifestation. The Yoga philosophy, particularly Patanjali Yoga Sutra, adds an experiential dimension to this model by emphasizing mental clarity and prenatal influences on consciousness. The development of Chitta (mind-field) during gestation resonates with the concept of Sattvaja Bhava, where mental states are inherited or developed even in utero (Tao, Yue & Hao, 2022).

Further, Yoga postulates that Samskaras (latent impressions) are carried by the Atma from past lives and may manifest through Shadbhava, providing a reincarnation-based explanation of behavioral predispositions.

Modern embryology attributes fetal development to the union of gametes and the interplay of genetic material (DNA), influenced by maternal health, nutrition, and environmental factors. This closely aligns with the Ayurvedic idea that Rasa, Satmya, and Sattva shape outcomes even when the genetic baseline (Matrija, Pitrija) is constant. The emerging field of epigenetics provides particularly compelling parallels. Epigenetics involves the regulation of gene expression without altering the DNA sequence itself, influenced by diet, toxins, behavior, and stress—precisely the domains of Rasaja, Satmyaja, and Sattvaja in Ayurvedic thinking (Prakash & Sabharwal, n.d.).

For example, prenatal stress has been shown to upregulate cortisol-related genes, affecting a child's emotional resilience and immunity. In Ayurveda, similar outcomes are attributed to disturbances in the mother's Sattva during pregnancy. Furthermore, studies in nutrigenomics validate the Ayurvedic belief that diet (Ahar) influences fetal development not just through calories but via signaling pathways and gene modulation.

Another interesting convergence lies in transgenerational epigenetics, where environmental exposures affect not just the child but multiple generations. Ayurveda describes the Beeja Dosha (defect in the germ cell) passed through families, paralleling the heritable effects of DNA methylation and histone modification.

Additionally, modern reproductive biology recognizes the mitochondrial inheritance from the mother, reinforcing Ayurveda's view of Matrija's dominant influence on vitality (Ojas) and longevity.

4. Charaka's Perspective on Shadbhava

4.1 Textual References from Charaka Samhita

The Sharira Sthana section of the Charaka Samhita, one of the most authoritative classical Ayurvedic texts, offers an intricate exposition on embryology and fetal development, grounded in the principles of Shadbhava. Charaka emphasizes the union of six primary procreative

factors—Matrija, Pitrija, Atmaja, Rasaja, Satmyaja, and Sattvaja—as indispensable for the creation and proper development of Garbha (Tambolkar & Mishra, 2021). Each factor is associated with distinct physiological, psychological, and spiritual dimensions of embryogenesis.

In Sharira Sthana, particularly in chapters 2 and 3, Charaka outlines the sequential development of the fetus and maps it to the integrated action of these Shadbhavas. Matrija and Pitrija are equated with maternal and paternal genetic inputs, correlating closely with modern concepts of zygotic formation and parental DNA contribution (Yawalkar & Choudhary, 2022). Notably, Atmaja is emphasized as the Jiva or soul's contribution—considered essential not just for consciousness but for shaping the existential framework of life itself.

Rasaja, or the essence derived from Rasa Dhatu, is consistently highlighted for its nutritional significance. Charaka's insight that inadequate or impure Rasa leads to developmental anomalies echoes contemporary understanding of the importance of placental nutrition (Moon, Diggavi & Hugar, 2024). Furthermore, Satmyaja is described as the fetal adaptation to dietary and environmental habits of the mother, underscoring the transgenerational influence of Ahara-Vihara. Sattvaja, associated with mental and emotional disposition, completes this sixfold framework. According to Charaka, imbalances in Sattvaja Bhava can result in psychiatric or cognitive disorders later in life (Malashri, 2018).

Charaka's holistic description is structured not only around physical and biological markers but also moral, psychological, and spiritual dimensions—an approach absent in most ancient or modern embryological frameworks.

4.2 Interpretations by Commentators

One of the most influential classical commentators on Charaka Samhita is Acharya Chakrapani Datta, whose commentary Ayurveda Deepika continues to serve as an interpretive cornerstone. Chakrapani interprets the Shadbhava framework as both ontological and practical in clinical gynecology and obstetrics. His expositions elucidate how defects in Matrija or Pitrija result in congenital deformities, drawing a remarkable early link to hereditary disorders and genetic mutations (Gochar & Sharma, n.d.).

In interpreting Satmyaja and Sattvaja, Chakrapani places pronounced emphasis on the Ahara, Vihara, and mental state of the mother. He states that if a pregnant woman is habituated to unsuitable foods or endures stress, the fetus may develop physiological or psychological vulnerabilities. This aligns strikingly with modern fetal programming theory and studies showing that maternal stress and poor nutrition are associated with low birth weight, cognitive impairments, and later-life metabolic diseases (Tambolkar & Mishra, 2021).

Moreover, Chakrapani expands the concept of Atmaja beyond spiritual philosophy into practical diagnosis. He suggests that some inexplicable disorders, resistant to physical interventions, may stem from Atmaja doshas—potentially early insights into idiopathic or psychosomatic conditions (Moon, Diggavi & Hugar, 2024).

His descriptions also support the classification of Shadbhava into internal (Antarbhava) and external (Bahirbhava) factors, recommending diagnostic protocols that include spiritual and psychological profiling of the mother and father. These multidimensional assessments continue to be echoed in modern integrative obstetric models.

4.3 Unique Contributions of Charaka

Charaka's approach to Shadbhava reveals a unique contribution that transcends anatomical reductionism. Unlike Sushruta, who is more focused on the structural and surgical aspects of Garbha, Charaka imbues the discussion with psychological, philosophical, and ethical undertones. His inclusion of Sattvaja Bhava, which refers to mental disposition and its embryonic origins, was centuries ahead of its time. Today, neurobehavioral scientists confirm that maternal emotional states can alter fetal brain architecture, reinforcing Charaka's position (Gochar & Sharma, n.d.).

Charaka's insight into maternal behavior (Garbhini Paricharya) also places him in line with contemporary epigenetics. His recommendations on Satmya—dietary compatibility and adaptation—find parallels in prenatal nutrigenomics. It is now scientifically validated that nutrition during pregnancy can activate or silence certain gene expressions in the fetus, with long-term implications on health.

Another distinguishing contribution is Charaka's emphasis on holistic health outcomes. Health in Charaka Samhita is not the absence of disease but a state of equilibrium among body (Sharira), mind (Manas), soul (Atma), and environment (Satmya). He explicitly cautions that failure in maintaining this balance during pregnancy can lead to disorders such as congenital blindness, mental retardation, and emotional instability (Yawalkar & Choudhary, 2022).

Interestingly, Charaka's discussion on Beeja Dosha—hereditary defects—is structurally equivalent to modern-day discussions on inherited mutations. In fact, in Chapter 4 of Sharira Sthana, Charaka details cases where defects in Shukra or Artava produce structural deformities in offspring, which prefigures the Mendelian understanding of recessive and dominant traits.

Overall, Charaka's contribution to Shadbhava theory is not just a description of reproductive mechanics but a holistic framework that integrates philosophy, diagnostics, lifestyle, and prognosis—making it a unique and enduring model in both ancient and modern paradigms of health.

5. Sushruta's Perspective on Shadbhava

5.1 Textual References from Sushruta Samhita

The Sushruta Samhita, a foundational text in Ayurveda, provides a detailed and anatomically rich exposition of embryology, particularly through the lens of the Sharira Sthana and Sutrasthana. Unlike Charaka, whose approach is more philosophical and preventive, Sushruta introduces surgical precision and mechanical clarity in the description of human development. Within Sharira Sthana, particularly Chapter 3, Sushruta discusses the Shadbhava model—the six formative factors essential for embryogenesis: Matrija, Pitrija, Atmaja, Rasaja, Satmyaja, and Sattvaja (Chouhan, 2024).

Sushruta uniquely emphasizes the structural formation of the fetus. He describes how the zygotic product (Garbha) forms as a combination of male and female contributions, akin to seed and field. He assigns morphological attributes such as twak (skin), shira (veins), and asthi (bones) specifically to Pitrija and Matrija Bhavas, reflecting an early understanding of anatomical inheritance (Gopal, Phatak & PS, 2023).

Further, the Sutrasthana underlines the timing and conditions of conception as critical. The "Rutu-Kshetra-Ambu-Beeja" doctrine is explained in detail, showing how fertilization depends on ovulatory timing (Rutu), uterine receptivity (Kshetra), nutritional medium (Ambu), and the union of gametes (Beeja), corresponding to modern reproductive physiology (Naaz & Shivaprasad, 2024).

Sushruta also expands on Rasaja Bhava, indicating that defects in maternal Rasa (nutritional fluid) can lead to underdeveloped organs or stillbirth. His understanding of nutrient circulation aligns with modern embryonic oxygen and nutrient delivery systems (Patel & Donga, 2021).

5.2 Interpretations by Commentators

Among classical commentators, Dalhana stands out for his systematic interpretations of Sushruta's surgical and structural insights. He defines Matrija as governing soft tissues and emotional traits, and Pitrija as influencing skeletal and structural elements. Dalhana posits that organogenesis is largely guided by the dominance of these two Bhavas during conception and early embryonic stages (Malashri, 2018).

Dalhana also affirms that while Shadbhavas function collectively, Pitrija and Matrija play a determinative role in anatomical outcome, emphasizing structural fidelity in organ formation. For example, anomalies in Beeja (sperm or ovum) are said to cause congenital deformities such as cleft palate or extra limbs—observations that closely mirror what we now classify under teratogenic defects (Puranik, Usha & Ravishankar, 2016).

Further, Dalhana's interpretation of Rasaja extends beyond simple nourishment. He notes that Rasa carries subtle energies (Ojas and Prana), critical for fetal immunity and vitality—an early conceptualization of immuno-nutritional transfer during pregnancy (Tao, Yue & Hao, 2022).

Dalhana's exegesis integrates Sushruta's surgical insights with holistic development, including sound, cognition, and circulation systems—systems he associates with Vayu, Agni, and Rasa interacting with the six Bhavas (Satkar & Dwibedy, n.d.).

5.3 Unique Contributions of Sushruta

The distinctiveness of Sushruta's approach to Shadbhava lies in its surgical clarity, structural detail, and anatomical specificity. As the progenitor of Shalya Tantra (surgery), Sushruta's embryological model lays the groundwork for surgical anatomy, especially prenatal diagnostics and interventions.

His work mentions congenital anomalies (Garbhaja Vikriti) and categorizes them according to the underlying Bhava defects, which can guide early prognostic measures. For instance, he associates Shukra Dushti (defective sperm) with structural deformities and Artava Dushti (defective ovum) with organ malformations—a classification that parallels chromosomal abnormalities such as Turner's or Klinefelter's syndromes (Chouhan, 2024).

One of the most pragmatic applications of Sushruta's framework is in fetal surgical intervention. He notes how intrauterine manipulations, such as correcting malpresentations or removing dead fetus, are dependent on understanding fetal structure, much of which is based on the influence of Shadbhava. Sushruta even discusses surgical tools and methods suitable for fetal extraction—a forerunner to modern cesarean procedures.

Moreover, Sushruta's knowledge of vascular development (Shira) and osseous systems (Asthi) suggests a near-accurate mapping of embryological timelines, some of which align with known stages like somite formation in the third week of gestation. His text also identifies masanumasik garbha vikas (month-wise fetal development), predicting visible organogenesis by the second month and full-body formation by the fourth month—facts later validated by modern ultrasonography (Gopal, Phatak & PS, 2023).

Sushruta's integration of Shadbhava into Shalya Tantra makes his approach uniquely valuable for modern Ayurveda. His embryological mapping is not just theoretical; it feeds into diagnostic algorithms, surgical

decisions, and even ethical discussions around prenatal care.

6. Comparative Textual and Conceptual Critique

6.1 Points of Convergence

Both Charaka Samhita and Sushruta Samhita, the foundational treatises of Ayurveda, accept the doctrine of Shadbhava—six essential factors contributing to embryogenesis—as the cornerstone of fetal development. These include Matrija (maternal), Pitrija (paternal), Atmaja (consciousness), Rasaja (nutritive), Satmyaja (habitual compatibility), and Sattvaja (mental qualities). Despite minor interpretative differences, the mutual acknowledgment of these six Bhavas forms the primary convergence point between the two classics (Tao, Yue & Hao, 2022).

This shared framework promotes a holistic and integrative understanding of embryology. While modern biology tends to compartmentalize development into genetics, nutrition, and psychology, Ayurveda views these domains as interacting elements. Both Charaka and Sushruta support the notion that life begins not merely with fertilization but with the coordinated function of both material and non-material contributors. For instance, both texts recognize Atmaja Bhava—the role of consciousness or soul—as a vital input alongside the physical contributions of the parents (Chouhan, 2024).

Another convergence lies in the emphasis on Rasaja Bhava, the nutritionally derived factor. Both texts assert that improper maternal nutrition (Rasa Dushti) can result in fetal anomalies or developmental failure. Modern parallels support this ancient view, as prenatal malnutrition is associated with up to 30% increase in risk of low birth weight and cognitive delays globally (Khedikar et al., n.d.).

Furthermore, both texts discuss Masanumasik Garbha Vikas (month-wise fetal development), which maps fetal growth by monthly anatomical benchmarks. While their descriptions vary, the shared chronology reinforces the Ayurvedic commitment to systematic observation of embryonic development, validating its scientific underpinnings.

6.2 Divergences and Conceptual Conflicts

Despite structural similarities, Charaka and Sushruta diverge significantly in their interpretation and prioritization of Shadbhava.

Charaka's exposition, mainly located in Sharira Sthana, leans towards philosophical and psychological interpretations. His focus on Sattvaja Bhava—which denotes the transmission of mental and emotional traits—illustrates his broader emphasis on consciousness and psychological well-being. He integrates mind-body-soul dynamics, suggesting that disturbances in maternal emotions can influence fetal development (Tao, Yue & Hao, 2022).

In contrast, Sushruta, especially through Sharira Sthana and Sutrasthana, provides a mechanically detailed and anatomically structured view. His text meticulously describes the formation of limbs, organs, and tissues, mapping them to Matrija and Pitrija contributions. For example, Pitrija Bhava is credited for skeletal structures, while Matrija influences soft tissues and temperament (Chouhan, 2024). This view aligns more with the structural-functional model observed in modern embryology.

Another divergence is their approach to Atmaja Bhava. While both accept the soul as a constituent, Charaka elaborates on its karmic dimension and its influence on traits like intelligence and longevity. Sushruta, however, treats Atmaja with less metaphysical detail and focuses more on anatomical outcomes, suggesting a practical or surgical bias (Khedikar et al., n.d.).

Moreover, Charaka introduces diet and environment (Satmyaja) as dynamic influences capable of modulating the fetus' constitution. This anticipates modern epigenetics, where gene expression is influenced by external factors like diet, stress, and toxins. While Sushruta mentions these influences, he devotes more attention to organogenesis and structural anomalies, consistent with his background in Shalya Tantra (surgery).

6.3 Critical Reflections

The textual comparison between Charaka and Sushruta offers profound implications for education in Ayurvedic Sharir Rachana (anatomy) and Sharir Kriya (physiology). Charaka's model nurtures a broader perspective that integrates psychology, ethics, and prenatal care into anatomical discourse. This is essential in an age where psychosomatic medicine is gaining clinical relevance.

Sushruta, on the other hand, prepares students for precise surgical interventions. His anatomical descriptions serve as blueprints for surgical training and diagnostics. Modern Ayurvedic curricula must balance these strengths—Charaka's philosophical depth and Sushruta's practical precision—to foster integrative thinking.

One of the key takeaways from this comparison is the potential for bridging classical knowledge with contemporary embryology. Charaka's acknowledgment of psychological and nutritional determinants foreshadows findings in fetal programming, where maternal behavior and diet influence fetal outcomes across generations. Sushruta's mapping of anatomical structures to functional units complements modern teratology, the study of congenital malformations.

Additionally, the Shadbhava model can inspire new avenues in epigenetic education and counseling. As genome-wide association studies (GWAS) and nutrigenomics evolve, Ayurveda's emphasis on Satmyaja

and Rasaja Bhavas can provide culturally embedded frameworks for maternal-fetal health.

Both classics, when juxtaposed, underscore Ayurveda's commitment to personalized, preventive, and predictive medicine—a vision that aligns remarkably with modern precision medicine. For instance, Charaka's caution against conception during parental emotional instability reflects today's findings linking maternal depression to altered fetal brain structure and function.

In sum, the comparative critique of Charaka and Sushruta on Shadbhava not only deepens our textual understanding but also illuminates how ancient insights can inform and enhance modern biomedical education.

7. CONCLUSION AND RECOMMENDATIONS

The comparative review of the concept of Shadbhava in Charaka Samhita and Sushruta Samhita reveals a remarkable confluence of textual profundity, philosophical depth, and clinical foresight embedded in classical Ayurvedic embryology. As the review unfolded through analytical layers—definition, philosophical underpinning, and textual interpretation—what emerged clearly is the shared recognition of the six formative Bhavas by both sages. These are Matrija, Pitrija, Atmaja, Rasaja, Satmyaja, and Sattvaja—concepts that together form the Ayurvedic blueprint for understanding the origin and development of life. Charaka and Sushruta, while operating within the same epistemological framework, bring out different nuances in interpretation and emphasis, with Charaka leaning towards a psychological-philosophical approach and Sushruta highlighting anatomical and surgical perspectives.

This convergence in foundational belief affirms the coherence and consistency of Ayurvedic thought, even across texts with distinct disciplinary leanings. Charaka's perspective draws attention to the emotional and mental states of the mother, the karmic dimension of Atmaja, and the subtleties of dietary influence (Satmyaja, Rasaja), offering a psychosomatic lens on fetal development. Sushruta, by contrast, focuses on organogenesis, detailing how bodily structures correlate to paternal and maternal contributions, and aligns closely with surgical anatomy and reproductive intervention. Despite these variances, the interplay between the six Bhavas is acknowledged in both texts as vital to fetal health and development, validating their practical relevance to both preventive care and diagnostics.

One of the most significant insights from this comparative analysis is how prescient these classical formulations are when read in light of modern developmental biology and genetics. The Shadbhava model, especially when interpreted through contemporary lenses such as epigenetics, offers a sophisticated understanding of how physical, psychological, nutritional, and spiritual factors influence embryonic growth. It becomes evident that these ancient texts, far from being merely speculative or symbolic, offer practical frameworks that can be aligned with emerging paradigms in biomedicine.

This synthesis also uncovers a critical need for further interdisciplinary research. There is considerable scope for developing a translational dialogue between Ayurveda and modern sciences like embryology, epigenetics, nutrigenomics, and developmental psychology. The principles laid out by Charaka and Sushruta warrant detailed exploration through clinical studies and experimental biology to examine how Ayurvedic variables such as maternal Satmya, Ahara, and Manas could manifest in measurable developmental outcomes. Such research could deepen our understanding of congenital conditions, prenatal interventions, and holistic child health practices.

Furthermore, the review underscores the necessity of standardizing the teaching of Garbha Sharir in Ayurvedic education. Presently, discrepancies exist in how these concepts are interpreted, taught, and applied across institutions. A comparative understanding, as explored here, can help streamline curricular content in Sharir Rachana and Sharir Kriya, reinforcing both philosophical context and clinical relevance. Curriculum modules could, for example, incorporate the comparative strengths of Charaka's psychosomatic vision and Sushruta's anatomical clarity, thereby fostering integrative and critical thinking in students.

Equally important is the translation of this knowledge into clinical and community practice. The insights from this review have direct implications for pre-conception counseling and Garbhasanskar programs. Charaka's emphasis on mental state, dietary discipline, and spiritual balance during pregnancy aligns well with modern recommendations on maternal well-being. Sushruta's surgical and diagnostic acuity can inform risk stratification and intervention models in gynecology and obstetrics. Integrating these into Ayurvedic maternal health protocols can greatly enhance the quality of prenatal care, particularly in community and integrative health settings.

Ultimately, this review affirms that the Ayurvedic vision of life creation—rooted in Shadbhava—is not only philosophically robust but also practically relevant to contemporary health science. By weaving together ancient wisdom with modern research, educators, clinicians, and scholars can construct a more holistic, culturally rooted, and biologically sound understanding of human development. This cross-temporal synthesis, far from being an exercise in academic nostalgia, serves as a foundation for reimagining the role of Ayurveda in the future of integrative reproductive health and medical education.

REFERENCES

1. Chouhan, H. (2024). Ayurvedic approach to Embryogenesis: Exploring Fetal Development.https://doi.org/10.21760/jaims.9.1.29
2. Gochar, A., & Sharma, R. K. (n.d.). The Contribution of Oja in Pregnancy with Special Reference to Immuno-Modulation. Retrieved fromhttp://www.researchgate.net/profile/Rakesh-Sharma-131/publication/381258712_The_Contribution_of_Oja_in_Pregnancy_with_Special_Reference_to_Immuno-Modulation
3. Gopal, U. B., Phatak, A. R., & PS, J. (2023). The Role of Rasaja Bhava (Nourishing Factors) in Development of Garbha (Embryo/Foetus).https://doi.org/10.47070/ijapr.v11iSuppl1.2660
4. Hiremath, S. (2009). Study of twak shareer wsr to kitibha kustha.http://search.proquest.com/openview/791c8d41477d24f1580c72d57acfb1a4/1?pq-origsite=gscholar&cbl=2026366&diss=y
5. Khedikar, S. G., & Erande, M. P. (2014). Concept of genetics in Ayurveda. Journal of Integrative and Scientific Medicine.http://journals.lww.com/jism/abstract/2014/02040/concept_of_genetics_in_ayurveda.6.aspx
6. Khedikar, S., et al. (2016). Critical Appraisal of Embryological Concepts (Garbhasharir) Delineated in Ayurveda.https://www.researchgate.net/profile/Sachin-Khedikar/publication/308524759
7. Khedikar, S., et al. (n.d.). Critical Appraisal of Embryological Concepts (Garbhasharir) Delineated in Ayurveda. Retrieved fromhttp://www.researchgate.net/profile/Sachin-Khedikar/publication/308524759
Landge, S. K., Pethkar, A. S., & Shelke, S. S. (2023). Garbha Sharir in Ayurveda.http://search.ebscohost.com/login.aspx?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=09769234&AN=163513624
8. Malashri, D. R. (2018). Study of Kshetra a Garbha Samagri WSR to Stree Vandhyatwa.http://search.proquest.com/openview/1d712879384b2689bf167fd3379dd6e3/1?pq-origsite=gscholar&cbl=2026366&diss=y
9. Moon, R., Diggavi, M., & Hugar, R. (2024). Understanding the Genetics and Hereditary Disorders Through Ayurveda: A Review. Retrieved fromhttp://wjpr.s3.ap-south-1.amazonaws.com/article_issue/342cb773d73bce248300b83271035e87.pdf
10. Naaz, A., & Shivaprasad, S. E. (2024). A Critical Review on Etiology of Vandyatwa in Current Era.http://wjpr.s3.ap-south-1.amazonaws.com/article_issue/70f2fb2e6bd1170e1cb790fef766708c.pdf
11. Patel, J. D., & Donga, S. B. (2021). Concept of Rasaja Bhava in Garbhavastha and its Applied Aspects.http://www.researchgate.net/profile/Jalpa-D-Patel-2/publication/369762491
12. Prakash, C., & Sabharwal, P. (n.d.). Ayurvedic Perspective of Epigenetics in Prenatal Development: A Critical Review. Retrieved fromhttp://www.researchgate.net/publication/362175249
13. Prakash, C., Sabharwal, P., & Dada, R. (2022). An observational study of anatomical concept of Shadgarbhakarabhava (six procreative factors) in prevalence of Arbuda. Ayu.http://journals.lww.com/ayuh/fulltext/2022/09020/an_observational_study_of_anatomical_concept_of.7.aspx
14. Puranik, P., Usha, V. N. K., & Ravishankar, B. (2016). A Critical Review on the Concept of the Garbhanga Vikruti with special reference to Teratogenicity.https://doi.org/10.21760/jaims.v1i4.6933
15. Satkar, S. R., & Dwibedy, B. K. (n.d.). An Approach Towards Understanding the Scope of Satkaryavada in Ayurveda: A Review. http://www.researchgate.net/publication/309709357
16. Tambolkar, P. V., & Mishra, B. (2021). A Critical Review of Importance of Sharirsthana by Aacharya Charak. Retrieved fromhttp://jaims.in/jaims/article/view/1576
17. Tao, Z., Yue, H., & Hao, L. (2022). Ayurveda Critical Appraisal of Embryological Concepts (Garbhasharir) Delineated in Ayurveda.http://traditionalmedicinejournals.net/index.php/ctmj/article/download/114/112
18. Yadav, A. K., Guru, B., Panda, S. D., & Baghel, R. S. (2021). A comparative study of Masanumasik Garbha Vikas Krama according to Ayurveda with its clinical importance. Journal of Ayurveda and Integrated Medical Sciences.http://doi.org/10.21760/jaims.v6i4.1396
19. Yawalkar, M. P., & Choudhary, V. M. (2022). Concept of embryology in Ayurveda with special reference to Garbha Sharir: A review article.http://wjpr.s3.ap-south-1.amazonaws.com/article_issue/0f9e5cbe7f8cc9d71a614682836b4adb.pdf