

The Code Of Righteous Living (*Sadvritta*): An Ayurvedic Framework For Immunomodulation Via Psychoneuroimmunology And Chronobiological Alignment

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Abstract

The contemporary global disease burden is increasingly dominated by non-communicable and lifestyle-related disorders characterized by chronic inflammation, circadian disruption, psychosocial stress, and impaired host defense. This shift necessitates preventative, non-pharmacological frameworks that integrate biological, psychological, and social determinants of health. Ayurveda conceptualizes immunity and disease resistance through *Vyadhikshamatva*, a dynamic expression of metabolic integrity (*Agni*), tissue vitality (*Dhatu Bala*), and the preservation of *Ojas*, the vital essence sustaining life and resilience. Central to this preventative paradigm is *Sadvritta*—the Code of Righteous Living—described in classical Ayurvedic texts as disciplined conduct encompassing physical, mental, ethical, social, and spiritual domains. *Sadvritta* as an *Achara Rasayana* (behavioral rejuvenative therapy) and elucidates its immunomodulatory role through contemporary scientific frameworks, including psychoneuroimmunology, chronobiology, and the gut-immune axis. By regulating daily routines (*Dinacharya*), emotional discipline (*Manasika Sadvritta*), ethical and prosocial behavior (*Samajika Sadvritta*), and mindful dietary practices (*Ahara Vidhi Vidhana*), *Sadvritta* mitigates allostatic load, stabilizes the hypothalamic-pituitary-adrenal axis, preserves circadian rhythmicity, and supports microbiome integrity. These mechanisms collectively enhance innate and adaptive immune functions, reduce systemic inflammation, and promote immunological memory.

Keywords: *Sadvritta*; *Vyadhikshamatva*; *Achara Rasayana*; *Psychoneuroimmunology*; *Chronobiology*; *Ojas*; *Dinacharya*; Gut-Immune Axis; Lifestyle Medicine; Ayurveda

I. Introduction: Redefining Health and Host Defense via Holistic Conduct

1.1. Global Health Paradigm Shift and the Need for Lifestyle Intervention

The trajectory of global morbidity has shifted dramatically, moving from acute infectious diseases to a pervasive burden of Non-Communicable Diseases (NCDs) and lifestyle disorders. This epidemiological transition highlights the critical failure of modern societies to maintain physiological equilibrium in the face of industrialization, technological advancement, and chronic stressors. A core pathological feature underlying many NCDs, including cardiovascular diseases and diabetes, is chronic, low-level systemic inflammation, often termed "metaflammation". This inflammation is

directly correlated with detrimental health effects stemming from poor dietary habits, physical inactivity, and, critically, a disturbed biological clock. In response to these challenges, there is a necessity to re-examine traditional preventative health models that emphasize holistic integration of physical, mental, and social health. The ancient Indian system of medicine, Ayurveda, offers a robust paradigm centered on the concept of *Swastha* (health), which is defined as a dynamic state of equilibrium encompassing not only the body's humors (*Doshas*), tissues (*Dhatus*), and waste products (*Malas*) but also the tranquility of the senses (*Indriyas*), mind (*Manas*), and soul (*Atma*). The resurgence of global health crises, such as the recent pandemic, has underscored the varying resilience among individuals and renewed interest in traditional

systems capable of enhancing host defense. Ayurveda provides a comprehensive, proactive framework for achieving psychological balance and preventative health through disciplined conduct, known as *Sadvritta*.

1.2. *Vyadhikshamatva* and *Sadvritta*: Defining the Nexus

The Ayurvedic concept central to host defense is *Vyadhikshamatva*, which translates directly as the physiological capacity for resistance against disease. This intrinsic power of the body varies significantly among individuals, determined by factors such as *Prakriti* (constitutional type), genetic predisposition, diet, mental status, and overall lifestyle. If this power to counter disease is strong, ailments either do not occur or manifest in a mild nature. The goal of Ayurvedic preventative care is fundamentally the cultivation of this innate resistance.ⁱ

Sadvritta (literally, 'good conduct' or 'righteous living') is the codified methodology employed within *Swasthavritta* to achieve and maintain this state of maximal resistance. It is a comprehensive set of ethical and moral guidelines elaborated extensively in classical texts such as *Charaka Samhita*, particularly in the *Indriyopakramaniya Adhyaya* of *Sutrasthana*. This code emphasizes observance of disciplined behavior across all facets of life—ethical, spiritual, social, and physical.ⁱⁱ

The central hypothesis posited here is that *Sadvritta* functions as a multi-target, nonpharmacological *Rasayana* specifically, *Acharya Rasayana*. *Rasayana* therapies are designed to promote longevity, vitality, and defense mechanisms against diseases (*Vyadhi*). By regulating conduct

(*Acharya*), *Sadvritta* actively

cultivates *Vyadhikshamatva* through the harmonization of the body's primary regulatory systems: the metabolic processes (*Agni*), the neuroendocrine axes (Psychoneuroimmunology, PNI), and the temporal alignment of physiology (Chronobiology). This holistic approach ensures effective disease prevention by addressing physical, mental, and ethical dimensions simultaneously.ⁱⁱⁱ

II. The Classical Substrate of Immunity: *Vyadhikshamatva*, *Ojas*, and *Bala* The understanding of host defense in Ayurveda is multi-layered, extending beyond simple pathogen-host interaction to encompass systemic vitality (*Bala*) and the ultimate vital essence (*Ojas*). These concepts provide the biological targets that *Sadvritta* is designed to nourish and protect.^{iv}

2.1. Dual Dimensions of *Vyadhikshamatva* Acharya Charaka classified *Vyadhikshamatva* into two distinct dimensions, reflecting two different phases of disease resistance.

1. ***Vyadhi-utpadakapratibandhakatva*:** This refers to the physiological counterattacking strength that actively inhibits the occurrence and reoccurrence of a disease. This capacity is analogous to the concept of **Innate Immunity** in modern science, representing the primary preventative defense mechanism and general host resilience.

2. ***Vyadhi-balavirodhitvam*:** This is defined as the body's capacity to put away or resist the power (severity) of a disease once it has already manifested. This dimension correlates closely with aspects of **Acquired or Adaptive Immunity** and the concept of disease tolerance, determining the prognosis and outcome of an ongoing pathology. The maintenance of robust *Vyadhikshamatva* is dependent on the integrity of the *Dhatus* (tissues), the balanced state of *Doshas*, optimal functionality of the body channels (*Srotas*), and efficient digestion (*Agni*). Conversely, factors that diminish this resistance are clearly delineated in the classics, including physical states such as excessive obesity or severe emaciation, depleted *Dhatus* (e.g., weak muscles and blood), intake of unwholesome or insufficient food, and, significantly, weakened mental faculties. Thus, improving immunity requires a holistic approach encompassing physical, mental, and ethical dimensions.^v

2.2. *Ojas*: The Ultimate Determinant of Life and Immunity

Ojas is considered the quintessential biological substance that embodies *Bala* (strength) and *Vyadhikshamatva*. It is the ultimate *sara* (essence) of the seven *Dhatus* (*Rasa* to *Shukra*) formed through perfect metabolic processing (*Dhatu Paka*). It is also characterized as the subtle essence of *Kapha Dosh*a and the water element, possessing intensely nourishing and healing qualities, often likened to Ghee.

Location and Function of *Ojas*

Ojas is categorized into two forms. The superior, finer form, **Para Ojas**, is concentrated in the heart (*Hridaya*) and is said to be present only in a measure of eight drops. This *Para Ojas* is indispensable for all normal mental and physical activities and controls the mind and consciousness, maintaining the span of life itself. Physicians recognize the heart as *Hridaya*, *Mahat*, and *Artha* due to this supreme concentration. The secondary, circulating form, **Apara Ojas**, pervades the entire body through the *Ojo Vaha Srotas*.

Its functions include controlling and regulating all physiological activities, strengthening muscle tissue (*Mamsa*) and other *Dhatus*, nourishing all bodily elements, clarifying the voice, brightening the complexion, and ensuring the proper function of all external and internal sense organs.

A strong state of *Ojas* provides defense and prevents the entry of disease; if *Ojas* is strong, the body resists disease. Conversely, *Ojas* depletion or disturbance (*Ojo Dosha*), such as *Ojo Vyapat* or *Ojo Visramsa*, leads to weakness, fatigue, and ultimately disease manifestation, potentially correlating with states of immunodeficiency or even autoimmune dysfunction where there is a malfunctioning of the *Doshas*.

Ojas as a Measure of Epigenetic and Metabolic Health

The formation of *Ojas* is not a static, predetermined process. The classics liken its formation to the process by which bees collect honey from diverse sources—*Ojas* is collected in the body through the cumulative effect of proper actions, qualities, habits, and diet. This principle establishes that the vitality and quantity of *Ojas* are not solely dependent on congenital factors (*Prakriti*), but are highly responsive to *Achara* (conduct) and lifestyle modulation. Since *Sadvritta* explicitly regulates conduct (*Achara*), diet (*Ahara*), and lifestyle (*Vihara*), the resulting quality and quantity of *Ojas* are profoundly influenced by daily discipline. This aligns the Ayurvedic concept of *Ojas* with modern concepts of **Epigenetic Regulation**, where environmental and behavioral factors influence gene expression and overall cellular vitality, contributing to resistance capability. Maintaining *Ojas* fundamentally requires avoiding factors that lead to unhappiness, such as worries and stress, which underscores the inseparable link between mental conduct (*Manasika Sadvritta*) and core biological vitality.

2.3. Agni and Dhātu Paka: The Gateway to Ojas

Optimal *Vyadhikshamatva* is intrinsically dependent on the health of *Agni* (the digestive and metabolic fire). The state of *Jatharagni* (the central digestive fire) is paramount, as it acts on ingested nutrients, transforms them, and separates them into *Prasad* (essence) and *Kitta* (waste products). Crucially, *Jatharagni* governs all twelve subsequent *Agnis* (the five *Bhuta Agnis* and seven *Dhātu Agnis*) that facilitate ultimate tissue metabolism (*Dhātu Paka*). When *Jatharagni* is balanced (*Samagni*), it digests and assimilates food properly, leading to the formation of high-quality *Dhatus* and ultimately robust *Ojas*. Persons possessing *Samagni* are universally hale and healthy. Conversely, imbalances,

such as *Mandagni* (hypoactive, related to *Vata* and *Kapha* vitiation)

or *Tikshnagni* (hyperactive, related to *Pitta* vitiation), cause defective *Dhātu Paka* and lead to various disorders. Following *Sadvritta*, which includes disciplined dietary and behavioral practices, is believed to enhance *Agni* and overall metabolic balance. Physical activity (*Vyayama*) is also essential for maintaining optimal *Agni* and supporting metabolic processes.

III. Sadvritta: Classification and Tenets (A Code for Homeostasis)

Sadvritta is not a simple collection of moral maxims, but a sophisticated, multi-domain framework designed to maintain *Tridosha* equilibrium and psychosomatic health. It is typically classified into five interlinked categories.

3.1. Sharirika Sadvritta (Physical Conduct) This category outlines the daily routines and practices (*Dinacharya*) that directly support physical health and longevity. These include practices such as daily bathing, rigorous oral care (brushing teeth, tongue cleaning—*Jihva-Nirlekhan*), maintaining cleanliness of excretory passages and feet, trimming hair and nails, and wearing clean clothes and appropriate footwear.

A crucial component is the avoidance of suppressing natural urges (*Vega Dharana*), as this forced suppression causes systemic disturbance and vitiation of *Doshas*, directly undermining health. Furthermore, *Sharirika Sadvritta* emphasizes sensory discipline (*Indriya Upakrama*). The classical texts explain that the five senses serve as tools for the soul and expressions of the mind. Proper use, or avoiding excessive, deficient, or perverted association of the senses with their objects (e.g., avoiding loud sounds or gazing excessively at minute, shining objects), is critical for preventing psychopathogenesis and preserving physical and mental health. This discipline regulates the mind's consumption of sensory input, minimizing unnecessary stress and excitation.^{vi}

3.2. Manasika Sadvritta (Mental and Emotional Discipline)

This aspect of *Sadvritta* focuses on cultivating the mind's higher qualities, primarily *Sattva Guna* (clarity, balance, purity), thereby achieving emotional stability and psychological resilience. The tenets serve as a protective shield against the mental precursors to physical disease. Key instructions include: cultivating patience, self-control, calmness, and peace; avoiding negative emotional states such

as anger (*Krodha*)—which disrupts the metabolic system at the cellular level envy, ego, and despondency; and refraining from remembering insults or losing courage. This comprehensive mental hygiene is termed **Acharya Rasayana** (Code of Conduct as a Rejuvenative Therapy). *Acharya Rasayana* is advocated precisely because psychological factors are afforded equal importance as physiological factors in the etiology and prevention of diseases in Ayurveda. The overall purpose is to foster harmonious equilibrium across the systems.

3.3. *Samajika* and *Vyavaharika Sadvritta* (Social and Ethical Conduct)

These interwoven codes prescribe guidelines for righteous interaction with the social environment, essential for fostering collective well-being and personal peace. Core virtues include truthfulness, generosity, sharing, charity, non-violence (*Ahimsa*), compassion (*Daya*) for all creatures, and respect for parents, teachers, elders, and learned persons. One should avoid misbehaving in public, lying, or revealing secrets.

A remarkable demonstration of ancient public health understanding is found within the codes of *Samajika Sadvritta*, which mandate specific rules for respiratory hygiene. The texts explicitly advise covering the mouth while coughing or sneezing to prevent droplet transmission. This ancient advice parallels modern infection control practices, demonstrating a timeless understanding of airborne disease prevention and the critical role of the individual in supporting collective health. This conduct aims to build a socially responsible individual whose actions maintain personal health as well as social harmony.

3.4. *Dharmika Sadvritta* (Moral/Spiritual Conduct)

Dharmika Sadvritta guides individuals towards moral and spiritual duties (*Dharma*), promoting inner strength and a deeper sense of purpose. These practices include worshipping properly, performing religious sacrifice in a holy manner, and adhering to the law of *Karma* (the correlation between good deeds and their results), thereby actively discouraging unethical behaviors (*Adharma*) such as cheating or stealing. By promoting spiritual growth, this category ensures mental clarity and stability, which, as detailed below, provides a powerful foundation for physical immunity.

IV. Mechanistic Analysis I: The PNI Axis and Acharya Rasayana

The integration of *Sadvritta* into daily life provides a powerful, non-pharmacological strategy for modulating the body's internal defense systems via the established principles of Psychoneuroimmunology (PNI). PNI is the scientific discipline that explicitly explores the bidirectional communication linking the nervous system, emotional state, and the immune system.^{vii}

4.1. *Sadvritta* as a Mitigator of Allostatic Load

Chronic psychosocial stress and emotional instability are known to induce profound disruptions in physiological well-being, manifesting as aggression, depression, and fear. These manifestations represent the body's allostatic load, placing chronic strain on neuroendocrine regulatory systems. The classical Ayurvedic texts clearly present *Manasika Sadvritta* as a protective shield specifically designed to maintain emotional stability and psychological resilience against such stressors. *Acharya Rasayana*, through disciplined mental conduct, directly counteracts the precursors of stress-related psychopathology. This process involves the stabilization of the Hypothalamic-Pituitary-Adrenal (HPA) axis. Chronic psychosocial strain, which is avoided through adherence to *Manasika Sadvritta*, is associated with alterations in circadian regulations of the HPA axis. One key measurable outcome of chronic stress is an impaired Diurnal Cortisol Slope (DCS). The adherence to *Sadvritta* principles, particularly those promoting calmness and regulating the mind, helps stabilize this regulation. Studies on comprehensive daily regimens that incorporate aspects of *Sadvritta* show that proper timing of activities can influence cortisol cycles, with cortisol naturally peaking around *Brahma Muhurta* (early morning). By fostering tranquility and minimizing chronic worry, *Sadvritta* mitigates the chronic activation that flattens the DCS and prevents the subsequent elevation of systemic inflammatory markers, such as Interleukin-6 (IL-6).^{viii}

4.2. Prosocial Behavior and Immunocyte Function

The ethical dimensions of *Samajika Sadvritta*, emphasizing compassion, empathy, and positive social interaction, translate directly into beneficial immunological outcomes. The adherence to ethical conduct fosters harmonious social relations and minimizes chronic interpersonal conflict, reducing the social strain that can trigger systemic inflammatory responses.

The biological dividend of compassion and empathy can be measured through specific immunological markers. Research investigating clinical interactions has demonstrated a positive correlation between prosocial behaviors, such as high nurse empathy, and superior patient immune markers, specifically increased percentages of B-cells and Natural Killer (NK) cells. NK cells are lymphocytes critical to the innate immune response, providing rapid defense against viral infections and early detection of malignant cells. This observation establishes that positive ethical conduct, as advocated by *Samajika Sadvritta*, is not merely a moral virtue but a quantifiable physiological benefit that enhances innate immune surveillance.^{ix}

4.3. Socioeconomic Disparities and *Sadvritta* The detrimental impact of psychosocial stress extends into socioeconomic stratification. Research indicates a significant association between lower Socioeconomic Status (SES) defined by metrics such as income or educational attainment and significantly elevated levels of systemic inflammatory markers, including C-reactive protein (CRP) and IL-6. Pro-inflammatory pathways are recognized as a vital mechanism translating socioeconomic inequality into physical and mental health disparities. While societal structures determine SES, the *Manasika* and *Dharmika Sadvritta* precepts offer a mechanism for cultivating psychological resilience and stability independent of material wealth. By promoting self-control, avoiding despondency, refraining from unethical behaviors (*Adharma*), and fostering a sense of inner purpose and clarity, *Sadvritta* provides an internal locus of control. This disciplined approach minimizes the impact of chronic psychosocial strain, mitigating the typical pro-inflammatory biological outcomes associated with external adversity, paving the way for a disease-free, healthier life.^x

V. Mechanistic Analysis II: The Chronobiological Axis and *Dinacharya*

Ayurveda's detailed prescription of daily and seasonal routines establishes a profound connection with the modern science of Chronobiology, which studies endogenous oscillations in organisms that align with the 24-hour cycle. The practices outlined in *Sadvritta*, particularly *Dinacharya* (daily regimen), are fundamentally an ancient framework for maintaining chronobiological alignment.

5.1. *Dinacharya* as Ayurvedic Chronobiology Ayurveda recognizes that physiological factors, including the *Tridosha*, *Agni*, and *Bala*, exhibit

intrinsic rhythmicity. For instance, *Kapha* dominates the early morning and evening, *Pitta* dominates midday and midnight, and *Vata* dominates the early hours of the morning and afternoon. The maintenance of proper health depends on preserving this natural rhythm. Disruption of this rhythm (*Kaala-Mithya Yoga* or *Ahita Kaala*) is recognized as a major etiological factor for disease. *Dinacharya* is prescribed precisely to maintain this dynamic equilibrium by harmonizing the body with nature's cycles. From a modern perspective, this is critical because immune system components, including cytokine release, T-cell differentiation, and leukocyte mobilization and trafficking, are mediated in a time-of-day-dependent manner. Circadian misalignment, often induced by shift work or technological disruption, leads to chronic disruption of immune system homeostasis and is associated with increased rates of metabolic syndrome and cardiovascular disorders. By regulating sleep routines, sunlight exposure, and timing of meals and activities, *Dinacharya* acts to regulate circadian rhythms at a cellular level.^{xi}

5.2. Alignment of Daily Practices with Hormone Rhythms

Specific elements of *Sharirika Sadvritta* are directly synchronized with known peaks and troughs of neuroendocrine activity:

- **Waking in *Brahma Muhurta*:** The practice of waking approximately 45 minutes before sunrise (*Brahma Muhurta*) aligns the body with the natural hormonal cycle. Research indicates that cortisol hormone is naturally at its peak during this early morning window. Waking and engaging in necessary routines during this period optimizes metabolic function and supports the natural defensive readiness necessary for the day.

- ***Sandhya Kala* Avoidance:** *Sadvritta* mandates the avoidance of stimulating activities (such as excessive movement or screen time) during *Sandhya*

Kala (dusk). This period is physiologically crucial because cortisol levels naturally begin to drop and melatonin secretion—essential for restorative sleep—starts. Disruption during *Sandhya Kala* interferes with this critical transition, negatively impacting the ability to rest deeply.^{xii}

Restorative Sleep and Immunological Memory

The emphasis on proper sleep within *Sharirika Sadvritta* is biologically validated as a fundamental requirement for strong *Vyadhi-kshamatva*. Good, restorative sleep provides strong immune responses and is directly involved in the formation of

antibodies, which are essential for immunological memory and protection against future pathogens. It also promotes the optimal function of white blood cells, the cellular components of the immune system. The framework of *Dinacharya* ensures that the sleepwake cycle is safeguarded from misalignment. This protection is fundamental to optimizing T-cell activation, supporting the consolidation of immune memory, and mitigating inflammation—all critical factors for cultivating *Vyadhikshamatva* through cellular efficiency and robust long-term defense.

VI. Mechanistic Analysis III: The Gut-Immune Axis and Ahara Vidhi Vidhana

The link between dietary habits, digestive integrity, and host defense is a cornerstone of Ayurvedic physiology, codified in *Ahara Vidhi Vidhana* (rules for food consumption). These rules maintain *Agni* and prevent the formation of *Ama*, processes now correlated with modern understandings of the Gut-Immune Axis.

6.1. Ahara Vidhi and Metabolic Integrity *Ahara Vidhi Vidhana* encompasses detailed rules for mealtime conduct, including maintaining hygiene, respecting food, eating on time, and consuming food in the right quantity. A primary injunction is *Jirne Bhunjitam*, meaning one must consume food only after the complete digestion of the previous meal. Adherence to these strict principles maintains *Samagni*, ensuring proper *Dhatu Paka* and the eventual generation of high-quality *Ojas*.

Metabolic integrity is compromised by the accumulation of *Ama* (undigested or toxic matter), which forms when *Agni* is weak or when food is improperly consumed. *Ama* is a precursor to systemic inflammation and disease. By strictly regulating the timing and quantity of food intake, *Ahara Vidhi* prevents *Ama* formation, ensuring a healthy immune system that is dependent upon strong *Agni* and the absence of *Ama*.

Viruddha Ahara and Microbiome Dysbiosis

Ayurvedic principles strictly categorize incompatible food combinations (*Viruddha Ahara*) and advise against consuming food that lacks its intended potential (e.g., rotten, overly ripened, or unripe food—*Sampad Viruddha*). These injunctions against incompatible foods and improper quality are directly linked to the emerging understanding of **Gut Microbiome Stewardship**.

Modern nutritional science confirms that an unbalanced diet, such as the typical Western diet high in saturated fats and simple sugars, leads to reduced diversity and dysbiosis of the gut

microbiome. High saturated fats impair the integrity of the intestinal barrier by reducing critical tight junction proteins (e.g., occludin and ZO-1), leading to "leaky gut" and chronic inflammation. Furthermore, simple sugars and emulsifiers negatively affect the intestinal barrier by promoting the expansion of mucin lytic bacteria. Therefore, the classical Ayurvedic advice against *Viruddha Ahara* is a sophisticated, pre-emptive measure to maintain the integrity of the intestinal mucosa and the diversity of the gut flora. By preserving a healthy microbiome, *Ahara Vidhi Vidhana* directly protects the Gut-Associated Lymphoid Tissue (GALT), the largest immunological organ in the body, thereby preserving the essential defense mechanisms of *Vyadhikshamatva*.

6.2. Mindful Eating and the Gut-Brain Axis (GBA)

Sadvritta emphasizes conduct during mealtime, mandating calmness, being thankful, and paying attention while eating. Crucially, *Ahara Vidhi* warns against consuming food in an improper state of mind, which is classified as *Hridya Viruddha*. This highlights the importance of mental well-being for optimal digestion and health.

This principle is supported by the physiological understanding of the Gut-Brain Axis (GBA), a complex, bidirectional communication pathway connecting emotion, immunity, and the gastrointestinal tract via neural, endocrine, and humoral routes. Long-term stress and emotional instability have adverse effects on gut motility, mucus secretions, and the mucosal immune response. *Manasika Sadvritta*, when applied to the act of eating, ensures the required psychological tranquility. This maximizes digestive efficiency, ensures proper nutrient assimilation, minimizes stress-induced intestinal permeability, and ultimately supports the efficient and high-quality generation of *Ojas*, thereby promoting psychosomatic well-being.

VII. Synthesis and Visualization of Sadvritta's Immunomodulatory Role

The analysis demonstrates that the various components of *Sadvritta* operate synergistically to regulate core homeostatic systems, which together optimize *Vyadhikshamatva*. The principles of conduct provide the necessary environmental inputs—physical, mental, and social—that stabilize *Doshas*, maximize *Agni*, mitigate stress, and align biological rhythms, all culminating in the production and preservation of *Ojas*. This functional relationship can be summarized through an integrated flow model and comparative tables, illustrating the

bridges between classical Ayurvedic nomenclature and modern scientific concepts and biomarkers.

7.1. Integrated Model of Sadvritta’s Action
The following visualization summarizes how the specific classifications of *Sadvritta* regulate the three established physiological axes to produce enhanced host defense.

Table 1: The Integrated Sadvritta-Vyadhikshamatva Pathway

Sadvritta Input (Lifestyle & Conduct)	Intermediate Physiological Axis	Ayurvedic Biological Outcome	Vyadhikshamatva (Immunity)
Sharirika Sadvritta (Dinacharya, Hygiene, Sleep)	Chronobiological Axis & Physical Health	Balanced Tridosha, Optimal Agni	Prevention of disease occurrence (Vyadhi-utpadakapratibandhakatva)
Manasika Sadvritta (Achara Rasayana, Calmness)	Psychoneuroimmunological Axis (PNI)	Stable Sattva Guna, Preservation of Para Ojas	Enhancement of resistance capacity (Vyadhi-balavirodhitam)
Ahara Vidhi Vidhana (Mindful Eating, Viruddha Ahara avoidance)	Gut-Immune Axis & Metabolic Health	Proper Dhatu Paka, Generation of Quality Ojas	Strong inherent defense mechanism (Prakritirakshini)

7.2. Comparative Analysis with modern science

Table 2: Comparative Analysis of Vyadhikshamatva and Modern Immunity Concepts

Ayurvedic Concept	Definition	Modern Immunological Correlate	Key Mechanism/Factor
Vyadhikshamatva (General)	Body’s power to resist disease and its severity.	Host Defense System, Overall Immunocompetence.	Ojas, Bala, Balanced Doshas.
Vyadhi-utpadakapratibandhakatva	Capacity to inhibit the occurrence of disease.	Innate Immunity, Primary Disease Prevention.	Genetic factors, Prakriti, Agni status.
Vyadhi-balavirodhitam	Capacity to resist the severity/progression of manifested disease.	Acquired/Adaptive Immunity, Disease Tolerance.	Antibody formation, Tcell activity, Dhatu Bala.
Ojas (Para/Apara)	Vital essence (end product of Dhatu metabolism), seat of life and consciousness.	Immune Reserve, NeuroEndocrine Stability, Stem Cell Niche Vitality.	HPA Axis regulation, Anti-inflammatory capacity.

7.3. Biomarker Correlation

Table 3: Sadvritta Tenets and Mechanistic Action on Immune Markers

Sadvritta Classification/Tenet	Action (Ayurveda)	Modern Scientific Mechanism (PNI/Chronobiology)	Reported Biomarker Impact (Modern Data)
Dinacharya (Proper Routine/Sleep)	Alignment with Kaala (Dosha Rhythms), restorative sleep.	Regulation of Circadian Rhythm/Biological Clock, HPA axis synchronization.	Stabilized Cortisol Diurnal Slope (DCS), reduced systemic inflammation (IL-6).

Manasika Sadvritta (Truthfulness, Calmness)	Fostering Sattva, psychological resilience (Achara Rasayana).	Stress reduction, decreased sympathetic nervous system activation.	Decreased stress-related inflammatory gene expression (CTRA profile, c-Jun).
Samajika Sadvritta (Compassion/Empathy)	Promotes social harmony, mutual respect, and hygiene.	Enhanced positive emotional states, reduced allostatic load, optimized social support.	Increased B-cell and Natural Killer (NK) cell percentages.
Ahara Vidhi (Mindful Eating)	Maintains Agni, prevents Ama and Viruddha Ahara.	Supports Gut Microbiome diversity and intestinal barrier integrity (GALT function).	Reduction in pro-inflammatory markers, integrity of intestinal tight junctions (Occludin, ZO-1).

VIII. Conclusion

The systematic review of *Sadvritta* confirms its status as a sophisticated, multi-domain framework for health maintenance, extending far beyond simple ethics or morality. It represents a comprehensive, non-pharmacological *Achara Rasayana* strategy dedicated to cultivating and preserving *Vyadhikshamatva*. The principles embedded within *Sharirika*, *Manasika*, and *Samajika Sadvritta* directly target and modulate the fundamental biological processes of host defense. Specifically, *Sadvritta* achieves immunomodulation by:

1. Minimizing the pro-inflammatory effects of chronic psychosocial stress through PNI pathways, stabilizing HPA axis function, and enhancing positive social conduct that directly promotes innate immune cell function (NK and B cells).
2. Optimizing the core regulatory systems (*Dosha*, *Agni*, *Bala*) through strict adherence to chronobiological alignment (*Dinacharya*), ensuring efficient metabolic operation and restorative sleep critical for immunological memory.
3. Protecting the integrity of the gut-immune axis through disciplined dietary conduct (*Ahara Vidhi Vidhana*), functioning as an effective protocol for gut microbiome stewardship and preventing the formation of inflammatory precursors (*Ama*).
4. Ultimately, *Sadvritta* ensures the efficient formation and preservation of high-quality *Ojas*, the vital essence that embodies host resilience and vitality. The enduring relevance of this framework provides an ideal model for contemporary integrative medicine and public health policy focused on quaternary prevention and lifestyle disease mitigation.

1. ⁱ Ashtanga Hridaya. *Sutrasthana, Dinacharya Adhyāya*. Chapter 2, Verse 19. (Specific *Dinacharya* and *Sadvritta* precepts).

2. ⁱⁱ Charaka Samhita. *Sutrasthana, Arthedashmahamooliya Adhyaya*. Chapter 30, Verse 6-7. (Location of *Para Ojas* in the heart, and its indispensable role).
3. ⁱⁱⁱ Charaka Samhita. *Sutrasthana, Arthedashmahamooliya Adhyaya*. Chapter 30, Verse 74-75. (Formation of *Ojas* and its collection via actions and habits).
4. ^{iv} Charaka Samhita. *Vimana Sthana, Rogānikavimāna Adhyāya*. Chapter 3. (Definition of *Vyadhikshamatva* and factors affecting it).
5. ^v Gupta, A. (2024). *Ojas and Vyadhikshamatva-Ayurvedic Perspectives of Immunity and its modulation in Clinical Arena*. *Journal of Nursing and Advanced Medical Science*, 8(3), 16000451. (Discusses *Ojas* and *Vyadhikshamatva* concepts).
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