



AYURVEDIC INTERPRETATION AND HOLISTIC MANAGEMENT OF FIBROMYALGIA: A SYSTEMIC, DOSHA-BASED AND INTEGRATIVE REVIEW

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<p>Article Info</p> <p>Article Received: 23 December 2025, Article Revised: 13 January 2026, Article Accepted: 03 February 2026.</p> <p>DOI: https://doi.org/10.5281/zenodo.18817238</p>	<p>ABSTRACT</p> <p>Fibromyalgia is a chronic, multifaceted pain disorder characterized by persistent widespread musculoskeletal pain, fatigue, sleep disturbances, cognitive impairment, and psychological distress. Despite extensive biomedical research, conventional management strategies largely focus on symptomatic control and often fail to provide sustained relief. Ayurveda, the traditional Indian system of medicine, offers a comprehensive and individualized understanding of chronic pain syndromes through the principles of Dosha imbalance, impaired digestive-metabolic function (Agni), accumulation of metabolic toxins (Ama), and depletion of vital energy (Ojas). This review aims to systematically analyze fibromyalgia through an Ayurvedic perspective and evaluate classical therapeutic approaches including Panchakarma, herbal and herbo-mineral formulations, dietary regulation, lifestyle modification and yogic interventions. By integrating classical Ayurvedic wisdom with contemporary scientific insights, the study highlights the potential of Ayurveda as a sustainable, holistic, and patient-centered approach for improving quality of life in individuals suffering from fibromyalgia.</p> <p>KEYWORDS: Fibromyalgia, Vatavyadhi, Panchakarma, Integrative Medicine, Sustainable.</p>
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1. INTRODUCTION

Fibromyalgia has emerged as a significant public health concern due to its chronic nature, complex symptomatology, and substantial impact on physical, emotional, and social functioning. It predominantly affects middle-aged individuals and is more commonly reported in women. The condition is marked by diffuse musculoskeletal pain, tenderness, persistent fatigue, non-restorative sleep, cognitive disturbances, and mood disorders. The absence of definitive diagnostic biomarkers and the heterogeneity of clinical presentation further complicate its management.

From a modern biomedical standpoint, fibromyalgia is associated with central sensitization, altered pain

processing, neuroendocrine dysregulation, oxidative stress, and psychosocial stressors. However, pharmacological interventions targeting neurotransmitters or pain pathways often provide limited benefit and may be associated with adverse effects during long-term use.

Ayurveda offers a distinct epistemological framework that views health and disease as dynamic states influenced by internal constitution, digestion, mental health, lifestyle, and environmental factors. Chronic pain disorders such as fibromyalgia are not perceived as isolated musculoskeletal conditions but as manifestations of systemic imbalance, particularly involving Vata Dosha. This holistic vision positions Ayurveda as a

promising complementary and integrative approach for fibromyalgia management.

2. AIM OF THE STUDY

The primary aim of this study is to critically analyze fibromyalgia through an Ayurvedic conceptual framework and to evaluate the scope of holistic Ayurvedic interventions in its effective management and long-term rehabilitation.

3. OBJECTIVES OF THE STUDY

1. To interpret fibromyalgia in the context of classical Ayurvedic principles and Dosha theory.
2. To analyze the Ayurvedic pathophysiology of fibromyalgia with reference to Vata imbalance, Ama formation, and Dhatu dysfunction.
3. To review existing classical and contemporary literature related to Ayurvedic management of chronic pain disorders.
4. To document the role of Panchakarma, herbal formulations, diet, lifestyle modification, and yoga in fibromyalgia management.
5. To develop an integrative conceptual model for holistic fibromyalgia care based on Ayurvedic principles.

6. To identify research gaps and future directions for integrative clinical studies.

4. RESEARCH QUESTIONS

1. How can fibromyalgia be understood within the Ayurvedic framework of Vatavyadhi?
2. What are the key Ayurvedic therapeutic strategies applicable to fibromyalgia management?
3. How does Ayurveda address the physical, psychological, and metabolic dimensions of fibromyalgia?
4. What is the scope for integrating Ayurvedic interventions with contemporary healthcare systems?

5. CONCEPTUAL FRAMEWORK OF THE STUDY

The conceptual framework of this study is based on the Ayurvedic disease model, where fibromyalgia is viewed as a result of:

- Vata Dosha aggravation
- Impaired Agni
- Ama accumulation
- Srotorodha (channel obstruction)
- Dhatu Kshaya (tissue depletion)
- Reduced Ojas

Conceptual Framework Linking Ayurvedic Pathogenesis to Fibromyalgia Symptoms

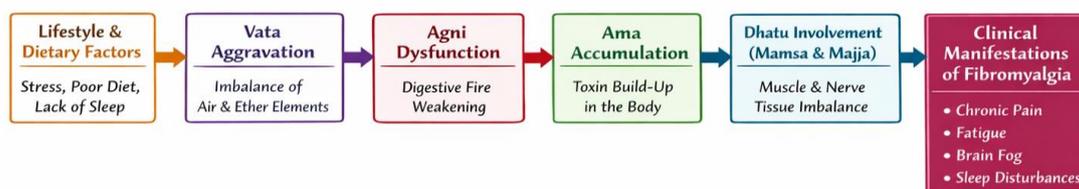


Figure 1: Conceptual Framework Linking Ayurvedic Pathogenesis to Fibromyalgia Symptoms.

6. REVIEW OF LITERATURE

The literature review is organized into **four thematic domains** to ensure conceptual clarity and scholarly depth:

1. Classical Ayurvedic literature
2. Contemporary biomedical literature
3. Integrative and complementary medicine studies
4. Identified research gaps and synthesis

This structure aligns with international review standards and avoids narrative redundancy.

6.1 Review of Classical Ayurvedic Literature

Ayurvedic classics do not describe fibromyalgia as a single disease entity; however, its symptom complex closely corresponds to descriptions of **Vatavyadhi**, **Sarvanga Vata**, **Mamsa-gata Vata**, and **Majja-gata Vata**. Pain, stiffness, fatigue, tremors, insomnia, and

psychological disturbances are consistently attributed to aggravated Vata Dosha.

a) Charaka Samhita

Charaka emphasizes that Vata, when vitiated due to improper diet, excessive exertion, emotional stress, and irregular lifestyle, becomes the principal cause of chronic pain disorders. The text highlights **Agni Mandya** as the initiating factor leading to **Ama formation**, which further obstructs bodily channels (Srotas) and deprives tissues of proper nourishment. Chronic pain associated with fatigue and weakness is explained as a consequence of **Dhatu Kshaya** and **Ojas depletion**.

Charaka also advocates **Basti therapy** as the most effective intervention for Vata-dominant disorders, describing it as *Ardha Chikitsa* (half of all treatments), underscoring its systemic influence.

b) Sushruta Samhita

Sushruta elaborates on the neurological and musculoskeletal manifestations of Vata imbalance. He emphasizes the interrelationship between **Majja Dhatu**, sensory perception, and pain sensitivity. The descriptions of generalized pain, stiffness, and loss of strength in Sushruta Samhita closely parallel fibromyalgia symptoms. Sushruta also underscores **Sneha (oleation)** as a cornerstone in managing chronic Vata disorders.

c) Ashtanga Hridaya

Vagbhata provides a concise yet comprehensive explanation of Vata vyadhi, emphasizing early correction of digestion, timely detoxification, and Rasayana therapy. The text highlights that untreated Vata disorders gradually become chronic, complex, and difficult to manage, a feature commonly observed in fibromyalgia.

Table 1: Correlation of Fibromyalgia Symptoms with Ayurvedic Descriptions.

Fibromyalgia Feature	Ayurvedic Correlation	Classical Reference
Widespread pain	Sarvanga Vata	Charaka Samhita
Muscle stiffness	Mamsa-gata Vata	Sushruta Samhita
Fatigue	Dhatu Kshaya	Ashtanga Hridaya
Sleep disturbance	Vata-pradhana Nidranasha	Charaka Samhita
Cognitive dysfunction	Majja Dhatu Dushti	Sushruta Samhita

6.2 Review of Contemporary Biomedical Literature

Modern medical literature defines fibromyalgia as a chronic pain syndrome involving central sensitization and altered pain processing. Numerous studies have demonstrated heightened pain perception due to dysregulation of neurotransmitters such as serotonin, dopamine, and norepinephrine.

i) Neurophysiological Studies

Research indicates abnormal amplification of pain signals at the central nervous system level. Functional imaging studies show altered activity in pain-processing regions of the brain, supporting the hypothesis of central sensitization.

ii) Neuroendocrine and Metabolic Factors

Several studies report hypothalamic–pituitary–adrenal (HPA) axis dysfunction in fibromyalgia patients, leading to altered cortisol rhythms, fatigue, and stress intolerance. Mitochondrial dysfunction and oxidative stress have also been implicated, contributing to muscle pain and reduced energy metabolism.

iii) Psychosocial Dimensions

Psychological stress, anxiety, depression, and poor sleep quality are consistently identified as aggravating factors. These findings align with the Ayurvedic concept that **Manasika Nidanas** (mental causative factors) play a crucial role in chronic disease progression.

Table 2: Comparison of Biomedical and Ayurvedic Perspectives.

Aspect	Biomedical View	Ayurvedic Interpretation
Etiology	Central sensitization	Vata Prakopa
Pain mechanism	Neurotransmitter imbalance	Vata disturbance in Majja
Fatigue	Mitochondrial dysfunction	Dhatu Kshaya
Stress	HPA axis dysregulation	Raja–Tama imbalance
Treatment focus	Symptom suppression	Root-cause correction

6.3 Review of Integrative and Complementary Medicine Studies

Recent decades have witnessed growing interest in integrative approaches for fibromyalgia management due to the limitations of pharmacological therapy.

a) Herbal Medicine Studies

Clinical trials have demonstrated the role of adaptogenic herbs in reducing fatigue, improving sleep quality, and enhancing stress tolerance. Herbs traditionally used in Ayurveda have shown anti-inflammatory,

neuroprotective, and antioxidant properties, supporting their relevance in fibromyalgia care.

b) Panchakarma-Based Interventions

Observational and clinical studies suggest that therapies involving oil massage, sudation, and medicated enemas improve pain scores, sleep quality, and overall functional capacity. These therapies are particularly effective in chronic cases where conventional treatment yields limited benefit.

c) Yoga and Mind–Body Therapies

Multiple randomized and non-randomized studies confirm that yoga-based interventions reduce pain intensity, anxiety, and depressive symptoms while improving quality of life. Mindfulness and breathing techniques are found to modulate autonomic balance and stress responses.

Integrative Therapeutic Model for Fibromyalgia

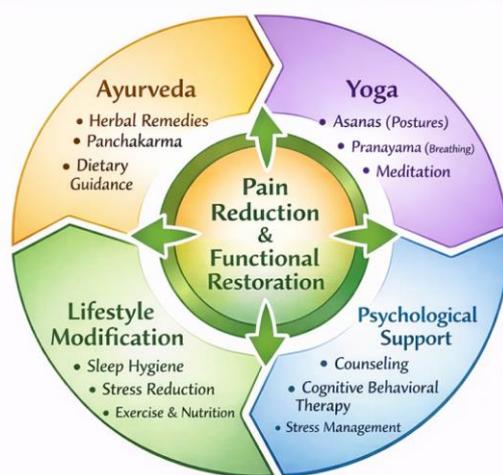


Figure 2: Integrative Therapeutic Model for Fibromyalgia.

6.4 Critical Analysis and Research Gaps

Despite promising evidence, existing literature reveals several limitations:

1. Most biomedical studies focus on symptomatic management rather than systemic correction.
2. Ayurvedic studies often lack standardized protocols and large sample sizes.
3. Limited interdisciplinary collaboration exists between Ayurveda and modern pain science.

4. Mechanistic explanations bridging Ayurvedic concepts with modern physiology remain underexplored.

These gaps highlight the need for structured integrative research models that respect classical Ayurvedic principles while employing contemporary research methodologies.

Table 3: Identified Research Gaps and Future Needs.

Area	Existing Status	Research Need
Diagnosis	Symptom-based	Integrative markers
Treatment	Fragmented	Holistic protocols
Evidence	Small studies	Large clinical trials
Integration	Limited	Multidisciplinary models

6.5 Synthesis of Literature Review

The literature collectively indicates that fibromyalgia is a systemic disorder involving physical, neurological, metabolic, and psychological dimensions. Ayurvedic literature provides a coherent explanatory model through Vata imbalance, Ama accumulation, and Dhatu

dysfunction, while modern research validates the multifactorial nature of the disease. Integrative approaches combining Ayurveda, yoga, and lifestyle interventions appear particularly promising for long-term management.

7. MATERIALS AND METHODS

7.1 Study Design

The present study adopts a **narrative-analytical review design** with a multidisciplinary orientation. Classical Ayurvedic texts, contemporary peer-reviewed biomedical literature, and integrative medicine studies were critically examined to synthesize a holistic understanding of fibromyalgia.

7.2 Sources of Data

The review was conducted using the following sources:

- Classical Ayurvedic texts including *Charaka Samhita*, *Sushruta Samhita*, and *Ashtanga Hridaya*
- Indexed biomedical journals focusing on pain science, neurology, rheumatology, and psychosomatic medicine.
- Journals related to integrative, complementary, and traditional medicine.
- Clinical reports, observational studies, and systematic reviews published during the last two decades.

7.3 Inclusion Criteria

- Studies addressing chronic widespread pain, fatigue, and fibromyalgia.
- Research articles related to Ayurvedic management of Vatavyadhi.
- Publications on yoga, mind–body therapies, and lifestyle interventions.
- English-language articles with accessible full text.

7.4 Exclusion Criteria

- Case reports with inadequate clinical details.
- Studies lacking methodological clarity.
- Non-peer-reviewed sources

7.5 Method of Analysis

Collected literature was analyzed thematically. Ayurvedic concepts were interpreted in relation to contemporary scientific explanations to develop an integrative analytical framework.

8. AYURVEDIC PATHOPHYSIOLOGY OF FIBROMYALGIA

Ayurveda explains fibromyalgia as a **chronic systemic disorder predominantly caused by Vata Dosha aggravation**, compounded by metabolic inefficiency and psychological stress.

8.1 Role of Vata Dosha

Vata governs movement, sensory perception, neuromuscular coordination, and mental activity. When aggravated, it produces pain, dryness, stiffness, tremors, fatigue, anxiety, and sleep disturbances. Chronic Vata imbalance particularly affects **Majja Dhatu**, leading to heightened pain sensitivity and cognitive dysfunction.

8.2 Agni Mandya and Ama Formation

Impaired digestive and tissue metabolism (Agni Mandya) results in the accumulation of Ama. Ama obstructs micro-channels (Srotas), disrupting nutrient transport and cellular function. This obstruction manifests clinically as heaviness, fatigue, muscle pain, and inflammatory sensitivity.

8.3 Dhatu Involvement

- **Mamsa Dhatu:** Muscle pain, stiffness, and tenderness.
- **Majja Dhatu:** Neurological symptoms, sleep disturbances, mental fatigue.
- **Ojas:** Reduced vitality, immunity, and stress tolerance.

Ayurvedic Pathogenetic Cascade in Fibromyalgia



Figure 3: Ayurvedic Pathogenetic Cascade in Fibromyalgia.

9. THERAPEUTIC PRINCIPLES IN AYURVEDIC MANAGEMENT

The management strategy focuses on **Samprapti Vighatana** (breaking the disease process).

Core Principles

1. Vata Shamana
2. Ama Pachana
3. Agni Deepana
4. Dhatu Poshana
5. Ojas Vardhana

10. PANCHAKARMA INTERVENTIONS

10.1 Abhyanga (Therapeutic Oleation)

Medicated oil massage provides nourishment to muscles and nerves, enhances circulation, reduces stiffness, and

calms the nervous system. Regular Abhyanga is particularly effective in chronic pain and fatigue.

10.2 Swedana (Sudation Therapy)

Herbal steam therapy facilitates toxin elimination, improves muscle flexibility, and reduces pain perception by relieving channel obstruction.

10.3 Basti (Medicated Enema)

Basti is the most effective therapy for Vata disorders. It directly regulates Vata at its primary site and exerts systemic effects on pain, digestion, and mental clarity.

10.4 Virechana (Therapeutic Purgation)

In selected cases, controlled purgation assists in detoxification and metabolic correction.

Table 4: Panchakarma Therapies and Their Therapeutic Actions.

Therapy	Primary Action	Clinical Relevance
Abhyanga	Vata pacification	Pain reduction
Swedana	Ama elimination	Muscle relaxation
Basti	Systemic Vata control	Neuromuscular relief
Virechana	Detoxification	Metabolic balance

11. HERBAL INTERVENTIONS

11.1 Adaptogenic and Analgesic Herbs

- **Ashwagandha:** Reduces stress, fatigue, and neuromuscular weakness.
- **Guduchi:** Immunomodulatory and anti-inflammatory.

- **Shatavari:** Tissue nourishment and hormonal balance.
- **Guggulu:** Musculoskeletal and anti-inflammatory support.

Table 5: Commonly Used Herbs in Fibromyalgia Management.

Herb	Ayurvedic Action	Therapeutic Benefit
Ashwagandha	Rasayana	Stress relief
Guduchi	Tridosha shamaka	Immunity
Shatavari	Brimhana	Tissue strength
Guggulu	Lekhana	Pain reduction

12. ROLE OF RASAUSHADHIS

Herbo-mineral preparations, when administered judiciously, support nervous system function, enhance metabolic activity, and improve tissue regeneration in chronic conditions.

Their use is particularly beneficial in long-standing fibromyalgia with severe fatigue and neuromuscular involvement.

- Healthy fats and spices

To Avoid

- Cold, dry, and processed foods
- Irregular meal timings

13. DIET AND NUTRITIONAL GUIDELINES

A **Vata-pacifying and Agni-enhancing diet** is essential.

Recommended

- Warm, freshly cooked foods
- Easily digestible meals

14. LIFESTYLE MODIFICATION (DINACHARYA)

Structured daily routine, adequate sleep, stress regulation, and gentle physical activity are essential components of long-term management.

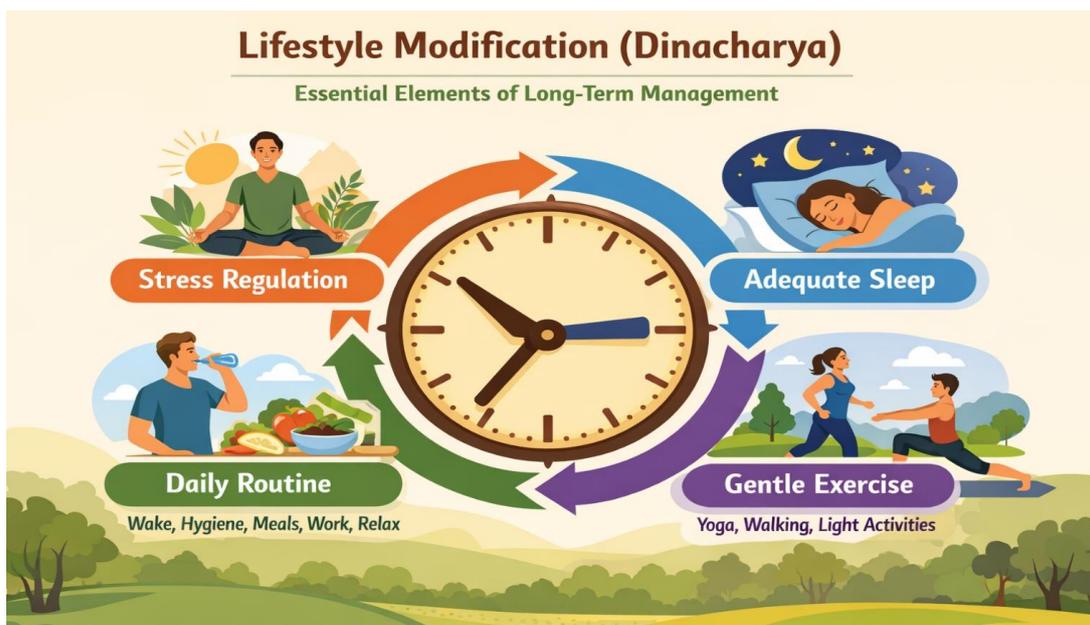


Figure 4: Lifestyle Modification (Dinacharya)

15. ROLE OF YOGA AND MIND–BODY PRACTICES

Yoga addresses both physical stiffness and psychological stress.

Therapeutic Benefits

- Pain modulation
- Improved sleep quality

- Reduced anxiety and depression

Recommended Practices

- Gentle asanas
- Pranayama
- Meditation and relaxation techniques

Integrative Treatment Algorithm for Fibromyalgia



Figure 5: Integrative Treatment Algorithm for Fibromyalgia.

Assessment → Panchakarma → Herbal support → Diet & lifestyle → Yoga → Follow-up & rehabilitation.

16. DISCUSSION

Fibromyalgia represents a complex, chronic pain condition that challenges conventional biomedical

paradigms due to its multifactorial etiology, subjective symptomatology, and absence of definitive diagnostic markers. Contemporary medical management largely

prioritizes symptom control through pharmacological interventions, often yielding inconsistent outcomes and limited long-term benefit. In contrast, Ayurveda offers a comprehensive interpretative framework that conceptualizes fibromyalgia as a systemic disorder rooted in functional imbalance rather than structural pathology.

The Ayurvedic understanding of fibromyalgia as a **Vatavyadhi** provides a coherent explanation for its cardinal symptoms, including widespread pain, stiffness, fatigue, sleep disturbance, and cognitive impairment. Vata Dosha, when aggravated, disrupts neuromuscular coordination, sensory perception, and psychological stability. The simultaneous involvement of **Agni Mandya**, **Ama accumulation**, and **Dhatu Kshaya** further amplifies disease chronicity and symptom severity. This multifactorial model parallels modern scientific concepts such as central sensitization, metabolic inefficiency, oxidative stress, and neuroendocrine dysregulation.

One of the most significant strengths of Ayurveda lies in its **individualized therapeutic approach**. Unlike standardized pharmacological regimens, Ayurvedic management adapts treatment according to the patient's constitution, disease stage, digestive capacity, and psychological status. Panchakarma therapies, particularly

Basti, address Vata at its primary site and exert systemic effects on pain modulation, metabolic regulation, and mental clarity. Herbal and herbo-mineral formulations contribute to tissue nourishment, immune modulation, and stress adaptation, while dietary and lifestyle interventions stabilize physiological rhythms.

The integration of yoga and mind–body practices further enhance therapeutic outcomes by addressing stress, anxiety and sleep disturbances—factors strongly associated with fibromyalgia symptom exacerbation. Collectively, these interventions demonstrate Ayurveda's potential as a sustainable, patient-centered model for chronic pain management.

17. INTEGRATIVE AYURVEDIC MODEL FOR FIBROMYALGIA MANAGEMENT

An integrative Ayurvedic model emphasizes **simultaneous correction of physical, metabolic and psychological dimensions** of the disease.

Core Components of the Model

1. Etiological factor identification
2. Dosha assessment (Vata predominance)
3. Correction of Agni and Ama
4. Panchakarma detoxification
5. Rasayana and supportive therapy
6. Lifestyle and yoga-based rehabilitation

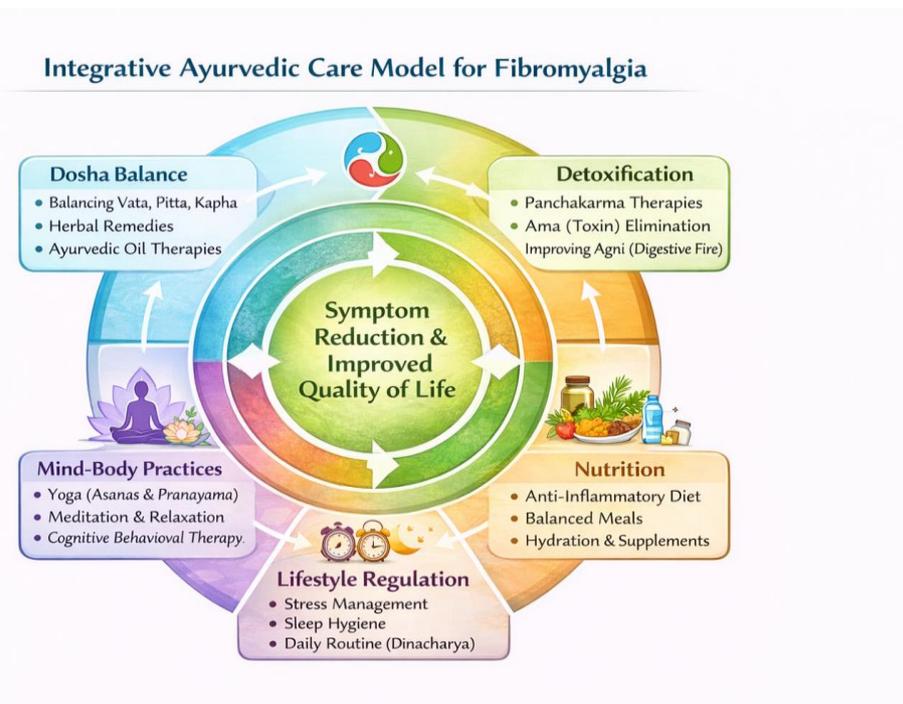


Figure 6: Integrative Ayurvedic Care Model for Fibromyalgia.

18. FUTURE SCOPE AND RESEARCH DIRECTIONS

Although Ayurvedic interventions demonstrate significant promise, further research is essential to strengthen evidence and promote integrative acceptance.

Future Research Priorities

- Development of standardized Ayurvedic treatment protocols
- Large-scale, multicentric clinical trials
- Biomarker-based assessment integrating Ayurvedic and biomedical parameters

- Long-term outcome studies evaluating quality of life and functional improvement
- Interdisciplinary collaborations between Ayurveda, neurology, and pain medicine

Table 6: Future Research Directions in Ayurvedic Fibromyalgia Studies.

Domain	Current Status	Future Requirement
Clinical trials	Limited scale	Multicentric studies
Diagnostics	Symptom-based	Integrative markers
Protocols	Individualized	Standardized frameworks
Integration	Minimal	Interdisciplinary models

19. LIMITATIONS OF THE STUDY

This review is based on secondary data sources and does not include primary clinical intervention. Variability in existing Ayurvedic studies and heterogeneity in treatment approaches limit direct comparability. Nevertheless, the study provides a strong conceptual foundation for future empirical research.

20. CONCLUSION

Fibromyalgia is a chronic, debilitating condition that necessitates a comprehensive and holistic management strategy. Ayurveda offers a robust theoretical and therapeutic framework by addressing the root causes of disease rather than merely suppressing symptoms. Through Dosha regulation, metabolic correction, detoxification, tissue rejuvenation, and psychosocial support, Ayurvedic management aims to restore systemic harmony and enhance quality of life. Integrating Ayurvedic principles with contemporary research methodologies can pave the way for effective, sustainable, and patient-centered fibromyalgia care.

21. AUTHOR DECLARATION

[1] Ethical Approval Statement

This study is a review-based academic work. No human or animal subjects were directly involved. Hence, ethical approval was not required.

[2] Consent for Publication

As this manuscript does not involve any individual-level data, images, or identifiable personal information, consent for publication is not applicable.

[3] Conflict of Interest

The author declares that there is no conflict of interest, financial or non-financial, related to the publication of this manuscript.

[4] Funding Disclosure

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