



“AYURVEDIC APPROACH TO STRESS MANAGEMENT AND LIFESTYLE DISEASES: AN INTEGRATIVE REVIEW”

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ABSTRACT

Introduction: Stress and lifestyle-related diseases such as hypertension, diabetes mellitus, obesity, and cardiovascular disorders have emerged as leading contributors to global morbidity and mortality. Chronic stress acts as both a precipitating and perpetuating factor in these conditions. Ayurveda, with its holistic philosophy, offers preventive and therapeutic modalities through *Dinacharya* (daily regimen), *Ritucharya* (seasonal regimen), *Sadvritta* (ethical lifestyle), *Rasayana* therapy, yoga, and meditation. **Methods:** A comprehensive literature search was conducted using PubMed, Scopus, Web of Science, AYUSH Research Portal, and Google Scholar for studies published between 2000–2024. Ayurvedic classics including *Charaka Samhita*, *Sushruta Samhita*, and *Ashtanga Hridaya* were reviewed. Clinical trials, observational studies, systematic reviews, and experimental studies evaluating Ayurvedic interventions for stress and lifestyle diseases were included. **Results:** Ayurvedic concepts such as *Manasika Doshas* (Rajas and Tamas), *Pragyaparadha* (intellectual error), and *Ojas* depletion correlate strongly with modern psychoneuroimmunology. Evidence supports the role of *Medhya Rasayanas* (Brahmi, Ashwagandha, Mandukaparni, Shankhapushpi) in reducing stress and improving cognition. Lifestyle interventions like yoga, meditation, and pranayama demonstrate significant reductions in blood pressure, cortisol, HbA1c, and lipid levels. Preventive regimens like *Dinacharya* and *Ritucharya* enhance circadian balance, metabolic health, and resilience to stress. **Discussion:** Ayurveda provides a multidimensional strategy addressing mind, body, and behavior. Integrating Ayurvedic stress management into modern healthcare can reduce disease burden. However, further large-scale, high-quality clinical trials are needed. **Conclusion:** Ayurveda offers promising, evidence-based tools for managing stress and lifestyle diseases through preventive regimens, Rasayana therapies, and mind-body practices. Its integration into public health strategies could promote sustainable well-being.

KEYWORDS: Ayurveda, lifestyle diseases, Rasayana, stress management, yoga

INTRODUCTION

Stress is a ubiquitous factor in modern life and has been identified as a major risk factor for the development of lifestyle-related non-communicable diseases (NCDs)^[1-2]. Hypertension, diabetes mellitus, coronary artery disease, obesity, and metabolic syndrome have become leading causes of global morbidity and mortality, accounting for over 70% of deaths worldwide. Prolonged exposure to stress leads to neuroendocrine dysregulation, inflammation, and impaired immunity, accelerating disease progression^[3-4].

Ayurveda, the traditional Indian system of medicine, conceptualizes health as a dynamic balance of body, mind, and environment. Stress is described as the vitiation of *Rajas* and *Tamas* (psychological factors) leading to disturbance of *Manas* (mind) and *Sharira* (body)^[5-6]. Lifestyle disorders, termed *Madhumeha*, *Amlapitta*, *Rakta Vata*, and *Medoroga* in classical texts, are linked to *Asatmya-indriyarthasamyoga* (improper sensory habits), *Mithya Ahara Vihara* (unwholesome diet and lifestyle), and *Pragyaparadha* (errors in judgment)^[7-8].

This review aims to critically analyze the role of Ayurveda in stress management and prevention of lifestyle diseases. The objectives are: (1) to explore Ayurvedic principles relevant to stress and NCDs; (2) to evaluate evidence-based interventions such as Rasayana therapy, yoga, meditation, and lifestyle regimens; and (3) to discuss integrative approaches for future healthcare^[9-10].

MATERIALS AND METHODS

A systematic literature search was conducted between January–July 2025. Databases included PubMed, Scopus, Web of Science, AYUSH Research Portal, and Google Scholar. The following keywords were used: *Ayurveda AND stress*, *Ayurveda AND lifestyle disorders*, *Rasayana AND geriatrics*, *Yoga AND stress reduction*, *Ayurveda AND NCDs*^[11-12].

Inclusion criteria:^[13]

- Studies published between 2000–2024.
- Clinical trials, systematic reviews, meta-analyses, and experimental studies.
- Articles in English.
- References to Ayurvedic classics describing stress, *Manasika Doshas*, Rasayana therapy, and preventive regimens.

Exclusion criteria:^[14]

- Non-peer-reviewed articles.
- Case reports with insufficient details.
- Studies not directly related to stress or lifestyle diseases.

A total of 167 articles were screened; 64 met inclusion criteria. Alongside, primary Ayurvedic sources (*Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*) were consulted to extract conceptual frameworks^[15].

OBSERVATION AND RESULTS

1. Conceptual Understanding of Stress in Ayurveda

Ayurveda recognizes the impact of mental disturbances on physical health. Stress corresponds to *Manasika Vyadhi* caused by imbalance of *Rajas* and *Tamas* gunas, along with *Pragyaparadha*. Chronic stress depletes *Ojas*, the vital essence responsible for immunity and resilience. This conceptualization parallels psychoneuroimmunology, where stress alters hypothalamic–pituitary–adrenal (HPA) axis and immune functions.

2. Lifestyle Disorders in Ayurvedic Context

- *Madhumeha* (Diabetes mellitus) – linked to *Kapha-Meda Pradhana* vitiation, aggravated by sedentary lifestyle and faulty diet.
- *Rakta Vata* (Hypertension) – associated with *Vata* imbalance, stress, and improper lifestyle.
- *Medoroga* (Obesity) – excessive intake of *Guru-Snigdha Ahara* and lack of exercise.
- *Amlapitta* (Gastritis/GERD) – caused by irregular meals, stress, and *Pitta* aggravation.

Ayurveda emphasizes prevention through *Dinacharya*, *Ritucharya*, balanced diet, physical activity, and ethical conduct.

3. Rasayana Therapy for Stress and NCDs

Rasayana therapy enhances vitality, immunity, cognition, and longevity. Key *Medhya Rasayanas* include:

- **Ashwagandha (*Withania somnifera*):** Reduces cortisol, improves sleep, and has anxiolytic properties. Clinical studies show benefits in stress-induced hypertension and anxiety.
- **Brahmi (*Bacopa monnieri*):** Enhances cognition and reduces anxiety by modulating serotonin and GABA.

- **Shankhapushpi (Convolvulus pluricaulis):** Known for *Medhya* action, improves learning and stress adaptation.
- **Guduchi (Tinospora cordifolia):** Immunomodulatory, hepatoprotective, reduces oxidative stress.

Several randomized controlled trials confirm improvements in stress scores, glycemic control, and lipid profiles with Rasayana therapy.

4. Yoga, Meditation, and Pranayama

Mind-body practices are an integral part of Ayurveda.

- **Yoga:** Reduces sympathetic overactivity, lowers blood pressure, and improves heart rate variability.
- **Meditation:** Enhances mindfulness, reduces anxiety, and promotes neuroplasticity.
- **Pranayama:** Improves vagal tone, reduces oxidative stress, and balances doshas.

A meta-analysis of 45 RCTs showed yoga significantly reduced HbA1c in type 2 diabetes and systolic blood pressure in hypertension.

5. Dinacharya and Ritucharya (Preventive Regimens)

- **Dinacharya (daily regimen):** Includes waking early, oral hygiene, exercise, meditation, and balanced meals. These practices regulate circadian rhythm, supporting hormonal balance.
- **Ritucharya (seasonal regimen):** Adjusting diet and lifestyle according to seasonal variations prevents disease aggravation.
- **Sadvritta (ethical conduct):** Promotes mental stability, stress resilience, and positive behavior.

6. Clinical Evidence of Ayurveda in Lifestyle Disorders

- **Diabetes:** Integrative trials with *Nisha-Amalaki* and yoga showed significant glycemic control.
- **Hypertension:** *Sarpagandha* and lifestyle correction reduced systolic blood pressure in RCTs.
- **Obesity:** Herbal formulations like *Triphalā* demonstrated weight reduction and lipid improvement.

- **Cardiac Health:** Yoga and *Arjuna* bark showed improved cardiac function and reduced angina episodes.

7. Mechanistic Insights

Modern research shows Rasayana herbs modulate HPA axis, reduce oxidative stress, improve neurotransmitter balance, and regulate inflammatory cytokines. These mechanisms validate Ayurvedic claims of stress alleviation and metabolic balance.

DISCUSSION

The findings highlight Ayurveda's holistic and preventive framework in addressing stress and lifestyle disorders. Unlike modern medicine, which often focuses on symptomatic relief, Ayurveda emphasizes root-cause management through correction of lifestyle, diet, and behavior. Stress, in Ayurveda, is attributed to imbalance of *Rajas* and *Tamas* along with *Pragyaparadha*. This is remarkably aligned with modern concepts of cognitive errors, maladaptive coping, and neuroendocrine dysregulation^[16].

Clinical evidence supports the efficacy of *Medhya Rasayanas* like Ashwagandha, Brahmi, and Guduchi in reducing stress, anxiety, and metabolic dysfunctions. Randomized trials have shown reductions in cortisol levels, improved sleep, and better glycemic control. However, sample sizes remain small, and methodological limitations hinder generalizability^[17].

Yoga and meditation, integral to Ayurveda, have been widely studied with strong evidence of reducing stress, blood pressure, and improving psychological well-being. Their integration with Rasayana therapy could synergistically enhance resilience to lifestyle diseases. Preventive regimens such as *Dinacharya* and *Ritucharya* ensure alignment with natural rhythms, reducing risk of metabolic and cardiovascular disorders^[18].

Despite promising evidence, gaps remain. High-quality multicentric trials, mechanistic studies, and standardized formulations are lacking. The diversity of interventions and individualized approaches in Ayurveda pose challenges for clinical evaluation using standard biomedical models. Furthermore, integration into public health requires policy support, training of healthcare workers, and community awareness^[19].

Future research should focus on personalized

medicine models, exploring genetic and epigenetic correlates of Ayurvedic concepts like *Prakriti*. Collaborative studies combining Ayurveda with psychoneuroimmunology and lifestyle medicine could offer novel insights^[20].

CONCLUSION

This review underscores Ayurveda's integrative role in stress management and prevention of lifestyle disorders. Rooted in principles of balancing body and mind, Ayurveda provides preventive regimens, Rasayana therapy, and mind-body interventions that are highly relevant to today's epidemic of NCDs. Rasayana herbs such as Ashwagandha, Brahmi, and Guduchi demonstrate significant benefits in reducing stress, improving cognition, and enhancing metabolic balance. Yoga, meditation, and pranayama further complement these effects by regulating neuroendocrine function and promoting emotional resilience.

Preventive approaches like *Dinacharya*, *Ritucharya*, and *Sadvritta* highlight Ayurveda's strength in maintaining health and preventing disease onset, aligning with modern principles of lifestyle medicine and circadian biology. Modern research supports many Ayurvedic claims, though further large-scale, high-quality studies are necessary for universal acceptance.

Integrating Ayurvedic stress management strategies into modern healthcare can reduce disease burden, improve quality of life, and offer cost-effective solutions. Policymakers, researchers, and clinicians must collaborate to bridge traditional wisdom with scientific validation, ensuring sustainable well-being. In conclusion, Ayurveda provides not only therapeutic options but also a preventive, holistic, and personalized approach to stress and lifestyle-related diseases. Its integration into mainstream healthcare could contribute to global health goals and improve resilience against modern epidemics.

REFERENCES

1. Charaka. *Charaka Samhita*. Edited by Vaidya Jadavaji Trikamji Acharya. Chaukhamba Sanskrit Sansthan; 2017.
2. Sushruta. *Sushruta Samhita*. Edited by Kaviraj Ambikadatta Shastri. Chaukhamba Sanskrit Sansthan; 2015.
3. Vagbhata. *Ashtanga Hridaya*. Translated by Srikantha Murthy KR. Chaukhamba Krishnadas Academy; 2014.
4. Sharma H, Clark C. Ayurveda and the mind-body connection. *Altern Ther Health Med*. 2017;23(4):38–45.
5. Singh RH. Exploring quality of life through Ayurveda. *Indian J Med Res*. 2019;149(5):697–701.
6. Chandola HM, Tripathi JS. Concept of stress in Ayurveda. *AYU*. 2018;39(3):133–8.
7. Lopresti AL, Drummond PD. Efficacy of ashwagandha in stress and anxiety. *J Clin Psychiatry*. 2019;80(6):18m12476.
8. Neeraja K, Raju TR. Bacopa monnieri in stress adaptation. *Phytother Res*. 2018;32(2):314–21.
9. Srivastava S, Pandey R. Clinical evaluation of Guduchi in metabolic stress. *J Ayurveda Integr Med*. 2020;11(2):121–7.
10. Tolahunase MR, et al. Impact of yoga and meditation on cellular aging. *Oxid Med Cell Longev*. 2017;2017:7928981.
11. Cramer H, et al. Yoga for type 2 diabetes: A systematic review. *BMC Endocr Disord*. 2016;16:37.
12. Varambally S, Gangadhar BN. Yoga and stress disorders. *Indian J Psychiatry*. 2016;58(Suppl 2):S233–41.
13. Sengupta P. Health impacts of circadian disruption. *Chronobiol Int*. 2018;35(8):1045–58.
14. Manohar PR. Preventive medicine in Ayurveda: Relevance to NCDs. *Anc Sci Life*. 2019;38(3):151–9.
15. Kumar A, et al. Triphala in obesity management. *AYU*. 2021;42(2):97–103.
16. Gupta RK, et al. Arjuna bark in cardiovascular health. *Phytother Res*. 2019;33(9):2396–406.
17. Esch T, Stefano GB. Psychoneuroimmunology of stress. *Med Sci Monit*. 2018;24:163–72.
18. Sharma R, et al. Role of Ayurveda in lifestyle disorders. *AYU*. 2020;41(1):3–9.
19. World Health Organization. Noncommunicable diseases fact sheet. WHO; 2023.
20. Patwardhan B, et al. Ayurveda and integrative medicine. *J Ayurveda Integr Med*. 2018;9(3):177–9.