



Review Article

IMMUNO-BALLS: UNVEILING THE MYSTERIES OF *KUSHMANDA RASAYAN* IN  
PSYCHOLOGICAL DISORDERS

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ABSTRACT

Ayurveda identifies *Ahara* (diet), *Nidra* (sleep), and *Brahmacharya* (regulated conduct) as the *Trayopasthambha*, the three pillars that sustain life and longevity. *Acharya Kashyapa* describes *Ahara* as *Mahabhaishajya*, the supreme form of medicine. *Kushmanda Rasayana*, a classical polyherbal formulation cited in *Ashtanga Hridaya* and *Bhaishajya Ratnavali*, is traditionally used for conditions such as cough, respiratory ailments, chest injuries, hemorrhagic disorders, and states of depletion. Additionally, it is reputed to enhance memory, cognitive function, and cardiac health. The present study aimed to develop a palatable *Immuno-ball* formulation of *Kushmanda Rasayana* to improve compliance and acceptability, emphasising the concept of *Ahara Rasa* and its role in nourishing bodily tissues to promote mental and physical well-being. **Materials and Methods:** The formulation was prepared with reference to classical texts (*Sharangdhar Samhita*, *Ashtanga Hridaya*) and modern nutraceutical literature to standardise methods. Ingredients, including dates, cashew nuts, grapes, and *Kushmanda Rasayana*, were finely crushed. Powdered jaggery was added as a binder, and the mixture was homogenised with ghee to achieve uniform consistency. The mass was shaped into small, spherical *Immuno-balls* suitable for oral administration. **Discussion and Conclusion:** *Rasayana* therapies enhance metabolism, improve the nutritive quality of *Rasa*, and facilitate nutrient circulation to vital tissues. *Kushmanda Rasayana* functions as a general and neurotonic tonic, supporting cognitive function and overall well-being. Formulating it as *Immuno-balls* improves palatability and compliance across age groups. The study suggests that *Kushmanda Rasayana* *Immuno-balls* can serve as a practical and effective approach to supporting mental and general health through their nourishing and immunomodulatory effects.

INTRODUCTION

Plants constitute the primary source of energy for human beings. Classical Ayurvedic literature has extensively documented the nutritional and therapeutic properties of whole grains, vegetables, and fruits for several millennia. The discipline emphasises that optimal health is maintained through the appropriate selection and quantity of food. Broadly, food may be defined as any solid or liquid substance capable of providing nourishment to the body.

A wholesome and balanced diet contributes significantly to disease prevention, and no therapeutic intervention is considered superior to properly administered nutrition. The *Charaka Samhita* identifies *Ahara* as a critical determinant of health, asserting that unwholesome dietary practices are a major causative factor in disease, whereas timely and appropriate consumption of wholesome food is indispensable for maintaining well-being. [1] Ayurveda, as the science of life, regards food as *Brahma*, the supreme sustaining force. It asserts that all living beings arise from food and that their survival is fundamentally dependent upon it. *Acharya Kashyapa* further designates food as *Mahabhesaja*, the greatest of all medicines. Within this framework, diet is considered a primary determinant of both health and disease.[2]

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*Kushmanda Rasayana* is a classical Ayurvedic formulation renowned for its role in supporting holistic mental health.<sup>[3,4]</sup> With the rising prevalence of psychological disorders, there is a growing need for safe, natural, and sustainable therapeutic approaches. Ayurveda emphasises the crucial link between nutrition and psychological well-being, advocating proper nourishment as essential for maintaining balance and harmony of the mind, body, and soul. *Kushmanda Avaleha* or *Kushmanda Rasayana* is prepared according to the references in the *Sharangdhar Samhita*. The *Avaleha* (or *Leha Kalpana*) is a semi-solid herbal formulation in which powdered medicinal ingredients are combined with sweetening agents such as jaggery, sugar, or *Khand* (sugar candy) and cooked with the specified juice or decoction to achieve the intended therapeutic and organoleptic properties.<sup>[5,6]</sup>

In Ayurveda, the mind (*Manas*) is considered an intermediary between the senses (*Indriyas*) and their corresponding objects (*Indriyarthas*), functioning as the seat of the soul's cognitive faculties. Perception and knowledge arise from the coordinated interaction between the senses and the mind. Ancient Ayurvedic scholars emphasised that the intellect serves dual roles: *Indriyabhigraha* (guidance of the senses) and *Svasya Nigraha* (self-regulation). Fundamental mental activities include thinking (*Chinta*), deliberation (*Vichara*), reasoning (*Uha*), concentration (*Dhyana*), and determination (*Samkalpa*). Disturbances in these activities- whether excessive (*Ati*), deficient (*Heena*), or distorted (*Mithya*)- can contribute to psychiatric disorders. Acharya Charaka further described the nature of the mind using the principles of *Anutvam* (atomic or subtle dimension) and *Ekatvam* (singularity or unity), highlighting its indivisible and subtle essence.<sup>[7]</sup> Ayurveda classifies the management of psychiatric and neuropsychological disorders into three primary approaches: *Daiva Vyapashraya Chikitsa* (spiritual or divinely guided therapy), *Sattvavajaya Chikitsa* (Ayurvedic psychotherapy aimed at strengthening the mind), and *Yukti Vyapashraya*

**MATERIALS AND METHODS**

**Table 1: Ingredients of *Kushamda Rasayan* Immuno-balls<sup>[10]</sup>**

S.no	Ingredients	Quantity
1	Dates	30gram
2	Cashew nut	30gram
3	Dried ginger powder	q. s
4	Jaggery	30gram
5	Ghee	q. s
6	<i>Kushmanda Rasayan</i>	20gram

*Chikitsa* (rational interventions involving the judicious use of herbal medicines, diet, and lifestyle modifications).

**Nutritional science**

The growing interest in dietary components that offer therapeutic value has significantly advanced the discipline of health and nutrition. Modern natural functional foods now bridge the gap between nourishment and medicine, reshaping our understanding of how diet influences well-being. This evolving viewpoint- recognizing nutrients as potential bioactive or healing agents- has given rise to the term "Nutraceuticals," marking a new frontier in nutritional science.<sup>[8]</sup>

It is essential to systematically record and scientifically validate medicinal plants that function both as therapeutic agents and nutritional supplements. Given their growing commercial importance, enhancing the production of food-derived nutrients and bioactive secondary metabolites used in nutraceuticals and pharmaceuticals has become increasingly urgent. Integrating traditional Ayurvedic knowledge with contemporary scientific and technological innovations offers a promising pathway for developing novel "Nutri-Ayur"-based products.<sup>[9]</sup>

Therefore, the present study explores the use of *Kushmanda Rasayana* as an immunomodulatory Ayurvedic formulation in the form of palatable Immuno-balls. By emphasizing the role of *Ahara Rasa* in nourishing vital dhatu, it aims to highlight the potential of *Kushmanda Rasayana* in supporting immune function and mental well-being. Incorporating nutraceuticals into the diet can enhance overall health, aid in managing specific disorders, and provide long-term benefits through a balanced, nutrient-rich dietary approach.

**AIM AND OBJECTIVE**

To formulate *Kushmanda Rasayana Immuno-balls* and assess their therapeutic benefits, with particular emphasis on their role in psychological disorders.

## Preparation

1. Ingredients, including dates, cashew nuts, grapes, and *Kushmanda Rasayana*, were finely crushed using a mixer grinder.
2. Additional components, such as jaggery and dried ginger powder, were also ground into a fine powder.
3. The crushed and powdered ingredients were thoroughly combined, and ghee was added to achieve a homogeneous consistency. The mixture was then shaped into uniform, spherical *Immuno-balls*.
4. The *Immuno-balls* were stored in airtight containers to maintain freshness, prevent moisture absorption, and ensure prolonged shelf-life.

Acharya Charaka highlights food as a fundamental determinant of health, stating that nourishment shapes both the body and the origins of disease. A large proportion of serious disorders arises from improper dietary choices. Hence, a thoughtful and self-disciplined person should select suitable foods and consume them in the correct amount and at appropriate intervals to safeguard health. Disruption or imbalance (*Vaishamyā*) in dietary practices is regarded as a significant cause of disease.<sup>[11]</sup>

In the present era, conditions such as rheumatoid arthritis, diabetes (*Madhumeha*), obesity (*Sthaulya*),

insomnia (*Nidranasha*), anxiety disorders (*Chittodvega*), and bronchial asthma (*Tamaka Śvāsa*) have become increasingly common and are widely categorised as lifestyle diseases. These ailments largely stem from unhealthy dietary patterns and improper eating behaviours. Hence, while managing such disorders and promoting overall well-being, the dietary principles outlined in Ayurveda must be carefully considered and applied.<sup>[11]</sup>

According to *Vaidya, Lolambara Raju*, food should be consumed not merely for nourishing the body (*Sharir poṣhaṇa*) or supporting the tissues (*Dhatu Poṣhaṇ*), but also for maintaining robust Immunity (*Ojovanta*). He further states that an individual who consistently consumes balanced and sensible food is unlikely to develop illnesses and may not require medication. Conversely, if a person undergoes treatment but neglects the appropriate dietary regimen (*Pathya*), the ongoing disease may fail to resolve.<sup>[12]</sup> *Acharya Harita* states that neglecting the guidelines of *Pathya* and *Apathya* and consuming inappropriate foods allows illness to remain entrenched in the body. Hence, a person must regularly adhere to a *Pathya*-based diet that aligns with their bodily needs and current disease status.

**Table 2: Therapeutic and Functional Attributes of Key Ingredients**

Sr.no	Ingredient	Action
1	<i>Kushmanda</i>	<ul style="list-style-type: none"> <li>✓ Pacifies <i>Vata</i> and <i>Pitta</i>; promotes cardiac and mental well-being with cooling and nourishing properties.</li> <li>✓ Rich in B-vitamins; boosts energy, enhances cellular metabolism, and reduces fatigue.</li> <li>✓ Protects neural tissue by mitigating oxidative stress, supporting cognitive function.</li> <li>✓ Regulates neurotransmitters such as GABA, norepinephrine, serotonin, and dopamine to reduce anxiety. <sup>[13]</sup></li> </ul>
2	<i>Ghrita</i>	<ul style="list-style-type: none"> <li>✓ Exhibits <i>Tridosha</i>-pacifying properties; nourishes <i>Vata</i>, balances <i>Pitta</i>, and mitigates <i>Kapha</i>.</li> <li>✓ Soothes the mind, alleviates <i>Chittodvega</i>, and addresses <i>Rajo</i> and <i>Vata-Pitta dosha</i> imbalance. <sup>[14]</sup></li> </ul>
3	Dates	<ul style="list-style-type: none"> <li>✓ Provides cerebro-protective effects by combating oxidative stress and inflammation.</li> <li>✓ Reduces stress and anxiety while enhancing mental clarity; may prevent neurodegenerative changes. <sup>[15]</sup></li> </ul>
4	Almonds	<ul style="list-style-type: none"> <li>✓ Modulates key neurotransmitters, facilitating efficient neural communication.</li> <li>✓ High in antioxidants and vitamin E, protecting against oxidative damage, neurodegeneration, and age-related disorders. <sup>[16]</sup></li> </ul>
5	Jaggery	<ul style="list-style-type: none"> <li>✓ Enhances taste, palatability, and shelf-life of preparations.</li> <li>✓ Acts as an appetizer, diuretic, rejuvenative, heart-friendly, nutritive, light, and beneficial in anaemia and general vitality. <sup>[17]</sup></li> </ul>
6	Overall	<ul style="list-style-type: none"> <li>✓ When combined, these ingredients create a Nutri-Ayurvedic formulation that</li> </ul>

	Immuno-balls	enhances cognition, reduces stress, boosts immunity, protects against oxidative damage, supports metabolism, and balances the doshas for overall health and well-being.
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## DISCUSSION

Among all the *Upastambhas*, *Ahara* (diet) is considered the most important nourisher of life. Acharya Charak emphasizes that sinful actions and an unwholesome diet are the two primary factors responsible for the causation of diseases. In the absence of these factors, an individual can remain free from ailments. Therefore, maintaining a nutritional balance is crucial for both disease prevention and the management of existing conditions.

Ayurvedic literature offers a comprehensive approach to diet, providing detailed guidelines on food selection, preparation methods, the mental state of the cook, hygiene standards, suitable utensils, meal timing, and portion sizes to ensure optimal digestion and nutrient absorption. Texts provide examples of wholesome foods (*Pathya*) and foods to avoid (*Apathya*), which are particularly important in disease management. *Charak Samhita* highlights that proper *Ahara* contributes not only to physical health but also to mental well-being, happiness, growth, strength, and a long, stress-free life.

Ayurveda employs a holistic and scientific approach to health, aiming both to preserve the health of the healthy and to restore balance in the diseased. Diet, along with *Nidra* (sleep) and *Brahmacharya* (discipline), plays a pivotal role in maintaining *Swasthya* (optimal health). *Ahara* functions as the primary fuel (*Indhana*) for *Jatharagni* and other *Agnis*, highlighting the interdependent relationship between diet and metabolic activity.

A balanced diet can support weight gain in malnourished or underweight individuals and enhance immunity through essential nutrients and vitamins. Classical texts tell *Kushmanda Avaleha* as a formulation with *Medhya*, *Brimhana*, *Balya*, and *Rasayana* properties, which provides strength, nourishment, and supports healthy weight gain, exemplifying the therapeutic potential of diet-based interventions.

### Role of Herbal Nutraceuticals in Health and Disease

Herbal nutraceuticals play a significant role in both health maintenance and disease management. The Ayurvedic concept of medicinal foods (*Ahara Rasayana*) aligns closely with the contemporary understanding of nutraceuticals, emphasizing the therapeutic use of dietary components in precise proportions to support physiological functions and treat diseases. As articulated in Ayurveda, "*Sarvam Dravyam Pancha Bhoutikam*"- meaning that the rational use of natural substances derived from the

five elements- can enhance overall health and strengthen immunity.

Modern lifestyle changes, rapid urbanization, and shifts in dietary patterns have contributed to a growing need for nutritionally optimized and health-promoting foods. In this context, *Kushmanda Rasayana* has been recognized for its multifaceted benefits: it supports the normal functioning of *Prana Vayu* and *Sadhaka Pitta*, enhances *Ojas* (vitality), uplifts *Sattva Guna* (mental clarity and positivity), restores *Dhriti* (steadfastness) and *Dhairya* (courage), and balances the disturbed *Rajas* and *Tamas* (emotional fluctuations and inertia).

## CONCLUSION

This formulation provides a synergistic combination of naturally occurring ingredients with demonstrated health-promoting effects, making it a practical and safe option to address nutritional deficiencies and improve general vigor. Nutraceutical preparations such as Immuno-Balls serve as an accessible approach to enhancing immune resilience and overall well-being. The integration of herbal nutraceuticals, particularly Ayurvedic *Rasayanas*, into modern dietary practices offers a promising strategy to prevent lifestyle-related disorders, improve immunity, and enhance physical and mental health. These interventions exemplify the confluence of traditional wisdom and contemporary nutritional science.

### Future Scope

Further research is necessary to systematically evaluate the pharmacological and immunomodulatory effects of herbal nutraceuticals in clinical settings. Standardization of formulations, dosage optimization, and large-scale clinical trials could establish their efficacy and safety profiles, paving the way for their integration into mainstream preventive and therapeutic healthcare. Additionally, innovations in nutraceutical delivery systems, such as functional foods and ready-to-use herbal supplements, can broaden their accessibility and impact on public health.

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