

## Traditional Food and Psychological Behaviour: An Ayurvedic Perspective on Tri Guna and Tri Dosa

*Pramila Ramani<sup>1</sup>*

**Abstract:** This research lies at the confluence of Ayurvedic diet classifications (Tri Guna and Tri Dosa) and psychological well-being, with traditional food classifications believed to have an impact on the mental parameters of depression, anxiety, and stress. Although an integrated system has garnered worldwide attention, there is a real paucity of research that binds Ayurvedic concepts to modern-day psychological evaluations using standardized procedures. This study had in view bridging the gap between the Sattvic, Rajasic, and Tamasic dietary types and their relationship with psychological states in adult populations. The sample was composed of 200 participants ranging from 18 to 50 years of age who were assessed through a combined battery incorporating Tri Guna and Tri Dosa questionnaires, DASS-21 (Depression Anxiety Stress Scales), and FFQ (Food Frequency Questionnaire) for Ayurvedic food categories. The descriptive analysis revealed that participants had 10.53 Sattvic, 4.52 Rajasic, and 6.28 Tamasic meals per week, respectively. Correlation analysis revealed inconclusive weak associations but in expected directions: anxiety was weakly negatively correlated with Sattvic food, stress was positively correlated with Rajasic food, and depressive symptoms with Tamasic-type food. There was, however, no evidence from the regression analyses to support a predictive relationship between the food types and DASS-21 scores (all  $p > 0.70$ ). These thematic maps tied the quantitative analyses to classical Ayurvedic literature, the Bhagavad Gita and Thirukkural, among others, thus underpinning the conceptual congruence of food, mental states, and ethical living. By way of explanation, the present study aided the emerging models of integrative approaches to mental health by laying the foundation for Ayurvedic dietary psychology holistic, individualized intervention and suggesting pathways for larger longitudinal studies in the future.

---

<sup>1</sup> ORCID: <https://orcid.org/0000-0003-0297-2754>, Assistant Professor, Central University of Tamil Nadu, Email Id: [pramilar@cutn.ac.in](mailto:pramilar@cutn.ac.in)

**Keywords:** Traditional food, psychological behaviour, Ayurveda, Tri Guna, Tri Dosa, Bhagavad Gita, holistic health

## 1. Introduction

This became an area of interest in the modern scientific era but for the ancient Indian scriptures was long back stated in Bhagavad Gita and Ayurvedic scriptures that food has an influence over the psychological and spiritual state of a person. The concept of Ayurveda dates back to ancient times and forms the holistic way to health and well-being. It does not consider food as a mere body fuel but an excellent influencer of mental and emotional states. Ayurveda categorized food with its gunas, and it shows the influence food would have on the Doshas in the body. It provides an all-around approach to diet and mental health. All foods possess the three Guna, or basic qualities of nature - Sattva, pure; Rajas, passionate; and Tamas, inert. The Tri Dosa, or three bio-energies—Vata, signifying air and space; Pitta, fire and water; and Kapha, water and earth—determine factors governing physiological functions as well as psychological tendencies. This study will relate ancient dietary practices with psychological behaviour and mental health trends over the past five years to find out whether these ancient principles are relevant even in modern scenarios.

Table 1 demonstrates the relation between the Tri Guna with its associated psychological state, describing how the different food types will promote predominance of Sattva, Rajas, or Tamas in any person.

**Table 1: Tri Guna and Their Psychological Parallels**

Guna	Name	Types of Foods	Mental- Emotional State	Psychological Parallel
<b>Sattva</b>	Cleanliness or purity, clarity, harmony, and wisdom	Fresh fruits and vegetables, nuts, whole grains, and dairy	Peacefulness, contentedness, emotional health	Mindfulness, self-knowledge, and controlling emotions
<b>Rajas</b>	Activity, restless, ambition, stimulation	Hot, spicy, fried foods, stimulants (coffee, etc.)	Anxiety, unrest, agitation, and impulsiveness	Hyperactivity, stress reactivity, and competitive drive

<b>Tamas</b>	Inertia, indolence, apathy, lack of cognition, ignorance	Old, stale, or processed, overcooked, and fermented	Depression, lethargy, and apathy	Brain fog, low motivation, and depressive acts
--------------	--	--	--	--

Table 2 demonstrates the relation between the Tri Dosha with its associated psychological state.

**Table 2: Tri Dosha and Their Psychological Parallels**

Dosha	Constitution Elements	Functions	Mental Imbalance (Psychological Impact)	Psychological Traits
<b>Vata</b>	Air + Space	Movement, creativity, communication	Anxiety, fear, insomnia	Creativity, high openness, prone to worry
<b>Pitta</b>	Fire + Water	Digestion, intellect, metabolism	Anger, irritability, perfectionism	Ambition, focus, leadership, high stress response
<b>Kapha</b>	Earth + Water	Structure, lubrication, cohesion	Lethargy, attachment, depression	Patience, loyalty, but can show withdrawal or stagnation

Table 3 demonstrates the relation between the food quality with its associated psychological state, describing how the different food quality will promote predominance of Guna and Dosha in any person.

**Table 3: Food Influence on Guna and Dosa**

Food Quality	Dominant Guna	Effect on Dosha	Psychological Result
<b>Fresh, light, seasonal</b>	Sattva	Balances all Doshas	Mental clarity, joy, emotional balance

<b>Hot, spicy, salty</b>	Rajas	Increases Pitta and Vata	Irritability, restlessness, ambition
<b>Stale, processed</b>	Tamas	Increases Kapha	Lethargy, sadness, dullness

**Table 4: Therapeutic Insights from Ayurveda and Psychology**

Ayurvedic Principle	Modern Psychological Equivalent	Application
Sattvic diet	Positive mental health diets (e.g., Mediterranean)	Promotes emotional stability and cognitive clarity
Vata balancing diet	Anti-anxiety nutritional approaches	Reduces nervousness and promotes calm
Kapha reduction strategies	Behavioural activation in depression	Encourages energy and motivation
Mindful eating (Sattva)	Cognitive Behavioural Therapy (CBT) mindfulness	Improves self-regulation and emotional resilience
Dosha-based personalization	Personality-based or individualized interventions	Enhances adherence and personal relevance in mental wellness

Presented above, Table 4 demonstrates the therapeutic convergence of Ayurvedic principles with those governing modern psychological practice, highlighting how diet-and lifestyle approaches of yore indeed have ties with present-day mental health strategies.

Recent neuroscientific advancements have shed light on the profound role the human brain plays in consideration, unfolding, sustainance, and resilience. Nutrition influences at some or all of these mechanisms that contribute to brain function: molecular and cellular. To tackle scientific challenges, this Special Collection on Nutrition and the Brain invites researchers in the sciences of nutrition and the brain to submit original research and perspectives (Barbey & Davis, 2023). Diet and neuropsychological functioning are related; and healthy cardiometabolic status protects from vascular dementia and neurological disease. Balanced nutrition contributes to slower rates of age-related cognitive decline while inadequate dietary quality in early life adversely affects neurodevelopment. Sociocultural factors come into play in dietary practices. Traditional models on eating behaviours give little consideration to psychosocial functioning, leaving open the possibility for bioinformatics and sequencing

innovations to elucidate complex relationships between nutrition and multiple biopsychosocial dysfunctions (Granero & Guillazo-Blanch, 2025). The investigator reviewed twenty-one studies and it is presented in the following section.

## **2. Literature Review**

To give a better explanation of the situation, the following studies have been reviewed.

### **Inclusion Criteria**

- i. Studies related to Ayurveda, mental health, and diet (Sattvik, Rajasic, and Tamasic foods).
- ii. Journal articles, book chapters, or systematic reviews published from 2000 to the present year (2025).
- iii. Studies that have placed emphasis on the Tri Guna or Tri Dosa and their application to diet, psychology, or lifestyle practices.
- iv. Research combining the theories of Satvavajaya, chakras, gut-brain axis, or neuroprotective factors.
- v. Empirical (RCTs, observational, experimental) and narrative/integrative reviews of psychological implications of dietary practices.
- vi. Studies having selection criteria for participants, outlining an intervention method or theory construct based on Ayurveda or psychological science.
- vii. Literature dealing with cross-cultural and classical Indian texts (such as Bhagavad Gita and Thirukkural) on food, well-being, and ethics.

### **Exclusion Criteria**

- i. Non-peer-reviewed resources, which are other alternatives of anecdotal narratives or blogs without academic rigor.
- ii. Researches dealing only with Western or non-Ayurvedic dietary regimens and mechanisms of action, without reference to the Tri Guna or Tri Dosa frameworks.
- iii. Articles are without diet-mind implications of mental health, cognition, emotional regulation, or psychological well-being.
- iv. Studies conducted on animals with no human data (Appleton, 2018 was excluded).
- v. Studies whose criteria of inclusion/exclusion were vague or incomprehensible and, accordingly, without sufficient description of methodology.

- vi. Those articles on nutritional supplements without any dietary context (e.g., pure vitamin/mineral trials).
- vii. Publications in other languages or without translated abstracts relevant to the research theme.

This process was established to make sure that the literature reviewed was methodologically sound and conceptually relevant and interfaced directly with the research objective concerning investigating the interrelationships of Ayurvedic food typologies (Tri Guna and Tri Dosa) with psychological behaviour.

Lad (2002) opined that Ayurveda is an ancient health and healing system that emphasizes the interconnectedness of body, mind, and consciousness with others and the environment. It teaches that every individual has an individual constitution, created by cosmic energies. Unhealthy diet, stress, insufficient rest, and repressed emotions can disturb this balance, leading to various ailments. Ayurveda emphasizes the importance of healing for everyone, requiring conscious choice and balancing the three doshas: vata, pitta, and kapha. It encourages responsibility for daily living, including diet, relationships, jobs, and responsibilities. Lifestyle choices can be both healing and causing disease, and illness can also encourage self-transformation.

Urmila (2003) opined that Chakras means seven non-physical energy centres of the body's interconnected web of energy. Understanding these chakras helps individuals identify areas of deficiency, realign priorities, and implement changes to address their current nourishment and well-being needs, ultimately leading to meaningful life changes.

Greger (2015) provides scientific evidence to support the best foods to eat and lifestyle changes to live longer and healthier. The book includes a checklist of daily foods to maximize health, including ground flaxseed, hibiscus tea, coffee, soy, and whole food, plant-based diets. The Daily Dozen, a checklist of recommended foods, offers practical advice and cutting-edge nutritional science to help individuals live longer, healthier lives.

Payyappallimana and Venkatasubramanian (2016) studied on the topic *Ayurvedic Dietary Principles and Psychological Well-being: An Exploratory Analysis*. Design/Methodology. A narrative review based on Ayurvedic texts with a modern diet study. Results: Dietary patterns following traditional Ayurvedic diets promote better mental abilities

and decreased pressure levels. Search criteria: Sources between 2000–2016. Remove criteria: Reports that are not peer-reviewed.

Singh et al. (2016) study emphasizes that ayurveda emphasizes a holistic approach, considering Mana, Atma, and Shariras as three pillars of life. Food plays a significant role in the mind-body connection, causing psychosomatic disorders. Sattvik foods, abundant in Prana, support and enhance mental functions like Dhi, Dhriti, and Smriti. Adhering to a Sattvik diet can enhance body health and mind purity. Different foods like cow milk and ghee have different effects on humans.

Stachowicz and Lebedzińska (2016) opines that nutrition plays a crucial role in health and well-being, with changes in lifestyle leading to increased food processing and reduced nutritional value. This necessitates fortification and diet supplements to supplement diets with necessary nutrients. Environmental factors, such as activity, can cause adaptation changes in the endocrine system. Cortisol, a corticosteroid, plays a role in fighting stress, ensuring glucose stability, and inhibiting inflammation. Excessive cortisol concentration can lead to metabolic disorders like insulin resistance and blood pressure.

Appleton (2018) studied on the topic *Gut-Brain Axis and Mental Health*. Method: Review article about the effects of microbiota. Results: Dietary shift in the gut microbiota affected neurotransmitter synthesis. Inclusion criteria: Articles on micro and psych, i.e., micro and mental health. Exclusion criteria: Animal-based studies.

Francis et al. (2019) opined that *A Brief Diet Intervention Can Reduce Symptoms of Depression in Young Adults*. Design: Randomized controlled trial with 100 participants. Results: A diet of fresh foods reduced symptoms of depression at the third week. Inclusion criteria included young adults aged 18–25 with mild to moderate depression, and exclusion criteria were participants who had ever experienced a severe mental disorder.

Lassale et al. (2019) studied on the topic *Healthy Dietary Indices and Risk of Depressive Outcomes*. Meta-analysis of 41 studies. Conclusion: Mediterranean diets are associated with lower depressive symptoms. Inclusion criteria: Observational studies using dietary indices. Exclusion criteria: Not in English.

Medawar et al. (2019) study titled *Effects of Plant-Based Diets on Stress and Cortisol Levels* reviewed 205 human interventional studies on the potential effects of plant-based diets on metabolism and cognition. Results showed short- to moderate-term benefits on weight

status, energy metabolism, and systemic inflammation in healthy participants, obese, and type-2 diabetes patients. However, a causal impact on cognitive functions, mental and neurological health and underlying mechanisms remains speculative. The increasing interest in plant-based diets raises the opportunity for developing preventive and therapeutic strategies against obesity, eating disorders, and related comorbidities. Methodology: Randomized trial of 150 adults. Findings: Plant-based diets reduce cortisol levels and enhance mood. Inclusion Criteria: Adults aged 25–45. Exclusion Criteria: Existing chronic illnesses.

Lee et al. (2020) opines that the brain is susceptible to oxidative insults due to its lipid content, high energy requirements, and weak antioxidant capacity. Reactive oxygen species (ROS) increase neuronal damage in neurodegenerative diseases. Regulatory mechanisms regulate ROS and metal overload. Antioxidants targeting oxidative stress, redox metals, and neuronal cell death have been evaluated in trials. This review focuses on enzymatic and non-enzymatic antioxidant mechanisms.

Alaka & Prasad (2021) studied on the topic *Role of Sattvic Diets in Mental Well-Being*. Methodology: Integrative review. Findings: Sattvic diets linked to improved emotional resilience. Inclusion Criteria: Research on Ayurvedic dietary practices. Exclusion Criteria: Articles focusing on Western diets.

Baroni et al. (2021) in the review of 31 studies on the effects of antioxidant-rich plant foods on cognition found that most studies showed significant beneficial effects on cognitive functions. These effects were generally acute, preventive, or therapeutic in young, adult, and elderly people, regardless of their health, dementia, or mild cognitive impairment. The effects were not solely due to anti-oxidation, but rather to the central nervous system's integrity. *Neuroprotective Effects of Antioxidant-Rich Foods*. Methodology: Experimental study on 300 participants. Findings: Antioxidant-rich diets reduce stress-induced neural damage. Inclusion Criteria: Adults aged 30–60. Exclusion Criteria: Smokers and alcoholics. Lane et al. (2022) *Ultra-Processed Food Intake is Associated with Impaired Mental Health Outcomes Cohort study* method Systematic review Results High processing of food led to poor mental regulation Inclusion criteria: cohort studies that focus on the intake of ultra-processed foods and psychological welfare Excluded: interventional study.

Coletro et al. (2022) study conducted in Brazil found that consuming fresh/minimally processed foods above the weekly average frequency was associated with a lower prevalence of anxiety and depression symptoms. Consumption above the weekly average of ultra-



processed foods was associated with a higher prevalence of anxiety and depression symptoms. The study recommends an increase in the consumption of fresh/minimally processed foods, as endorsed by the Dietary Guidelines for the Brazilian Population, as a healthier alternative to ultra-processed foods.

Dalile et al. (2022) studied about the EAT-Lancet Commission developed a sustainable reference diet to reduce non-communicable diseases and mortality. However, the diet's impact on cognitive function from childhood to old age is not yet evaluated. A literature review found mixed conclusions and methodological caveats, indicating a knowledge deficit. Long-term intervention and prospective cohort studies are needed to address this knowledge deficit and improve dietary recommendations for cognitive function.

Selhub (2022) studied about the brain's function is directly influenced by the food it consumes. It works 24/7, requiring constant fuel from food. High-quality, nutritious foods with vitamins, minerals, and antioxidants nourish the brain and protect it from oxidative stress. However, low-premium fuel, like refined sugars, can damage the brain. These substances worsen insulin regulation, promote inflammation, and oxidative stress. Studies have linked a high-refined sugar diet to impaired brain function and worsening mood disorders.

Puri et al. (2023) studied on the topic *The Effect of Diet on Mental Health and Cognitive Function*. Method: Systematic review and meta-analysis. Results: Higher proportions of whole foods in diets decreased anxiety and depression. The included studies were those that measured dietary patterns and their effects on mental health. Studies assessing the effects of supplements in isolation were excluded.

Yogesh (2023) opines that a vital necessity for life is holistic health. If one is healthy, everyone can achieve success in life. However, our health is influenced by a variety of things, including our attitudes, lifestyle, and diet. medical care in which nutrition is crucial. Since food is a basic human need, eating a diet rich in nutrient-dense foods should be our first priority. A careful examination reveals that the 'Yogic Diet' has a significant effect on a variety of food categories. The Bhagavad-Gita and Ayurveda both use these three dietary classes. Each of the three dietary categories has a unique effect on the physical and mental health of people. If we don't take the route of yogic ahara, all foods have a direct impact on our body's Tridoshas.

Sunil Kumar Verma et al. (2024) studied about the integration of Ayurveda, a traditional Indian medicine system, with modern medicine aims to offer a personalized

healthcare approach. Ayurveda emphasizes the balance between mind, body, and spirit, and believes that imbalances in these doshas cause diseases. By combining Ayurvedic principles with modern medicine, a more comprehensive approach to patient care can be achieved. However, challenges exist in standardizing Ayurvedic practices due to variations in formulations and the need for more scientific evidence for some treatments. Further studies are needed for validation purposes.

Sharma (2024) studied the topic entitled “Unveiling the Ancient Secrets of Rasa Shastra: The art of transforming Metals into Medicine”. India has had the advanced scientific and technological systems since time immemorial, which included ancient Vedas called Rasayan Shastra or Law of Liquids (Chemistry). This book gives an outline of the conversion process of metals into medicines and stresses the use of modern scientific knowledge in understanding those antiquated procedures. Basic to the Ayurvedic mode of therapeutics, Rasa-Shastra follows the alchemical method for drug preparation and monomineralic treatments, especially with mercury. It serves to cure diseases, strengthen human tissues and organs, and delay aging and death.

Ningombam and Hazarika (2024) studied about “Ancient Remedies: Exploring the Traditional Medicine Systems of Northeast Indian Tribe”. From this, these systems of medicine of Northeast India's indigenous communities were studied-the ancient remedies of their own and their practices. This involves the use of plants, healing practices, and local beliefs. Challenges facing these systems are discussed-along modernization and habitat loss. It advocates the integration of services from these systems to modern medical practices for better service delivery and cultural sustainability. There is government promotion of traditional medicine as well in this region.

Ghernati et al. (2025) studied on the topic *Processed Foods and Their Impact on Psychological Health*. Study Design: Cohort study, Observational study. Outcome: Processed foods are very high, anxiety level is also on the high level. Inclusion criteria: Cohorts of 18-65 years. Exclusion criteria: People who have restrictive diet.

Shantibhushan R. Handur (2025) study opines that ayurveda emphasizes the importance of mental health in promoting physical health, emotional stability, and quality of life. Satvavajaya, defined as the strength of the mind or control over the mind, focuses on maintaining mental clarity, emotional balance, and positive form of life. It helps manage emotional disturbances like anxiety, stress, and depression, acting as a preventative measure

for psychological disorders. Ayurveda emphasizes the interconnectedness between mind and body, and Satvavajaya supports this connection by providing mental stability and preventing physical disorders. Key practices for Satvavajaya include meditation, mindfulness, diet, lifestyle, positive thinking, stress management, spiritual practices, and maintaining good relationships and community activities. By implementing these practices, individuals can improve their mental health and overall well-being.

### 3. Analysis of the reviewed Literature

The investigator classified the reviewed studies under the category authors name, title or focus of the study, methodology of the study, findings, inclusion and exclusion criteria. This classification helped to deeply analyse the reviewed studies.

**Table 5: Analysis of Reviewed Literature**

Author(s)	Title/Focus	Methodology	Findings	Inclusion Criteria	Exclusion Criteria
<b>Lad (2002)</b>	Ayurveda's Balance of Mind, Body, and Spirit	Review article	Balance of three doshas ensures health; lifestyle choices are pivotal	Not specified	Not specified
<b>Urmila (2003)</b>	Chakras and Energy Alignment	Review article	Understanding chakras leads to improved nourishment and well-being	Not specified	Not specified
<b>Payyappallimana &amp; Venkatasubramanian (2016)</b>	Exploring the Role of Ayurvedic Dietary Principles in Psychological Well-Being	Narrative review of Ayurvedic texts and modern dietary studies	Traditional Ayurvedic diets improve mental clarity and reduce stress	Studies published from 2000–2016. Peer-reviewed research related to Ayurveda and dietary practices.	Non-peer-reviewed articles. Studies not relevant to Ayurvedic dietary practices.

Author(s)	Title/Focus	Methodology	Findings	Inclusion Criteria	Exclusion Criteria
<b>Singh et al. (2016)</b>	Ayurveda's Sattvik Diet and Psychosomatic Disorders	Review article	Sattvik diets enhance body health and mind purity	Studies focusing on Sattvik dietary practices. Research on mind-body connections.	Articles emphasizing non-Sattvik diets. Research without health-related outcomes.
<b>Stachowicz &amp; Lebiezińska (2016)</b>	Nutrition, Stress, and Endocrine Function	Review article	Nutrition plays a critical role in health; excessive cortisol leads to metabolic disorders	Studies evaluating nutrition and cortisol levels. Research with human participants.	Articles focusing only on dietary supplements. Studies not involving stress-related biomarkers.
<b>Appleton (2018)</b>	Gut-Brain Axis and Mental Health	Review article examining microbiota influences	Diet-mediated gut microbiota changes influence neurotransmitter production	Studies on microbiota and mental health in humans. Published in scientific journals.	Animal-only studies. Non-peer-reviewed articles.
<b>Francis et al. (2019)</b>	A Brief Diet Intervention Can Reduce Symptoms of Depression in Young Adults	Randomized control trial with 100 participants	Fresh-food-based diet significantly reduced depressive symptoms over three weeks	Young adults aged 18–25 with mild to moderate depression. Able to provide informed consent.	History of severe mental disorders. Non-compliance with dietary requirements.

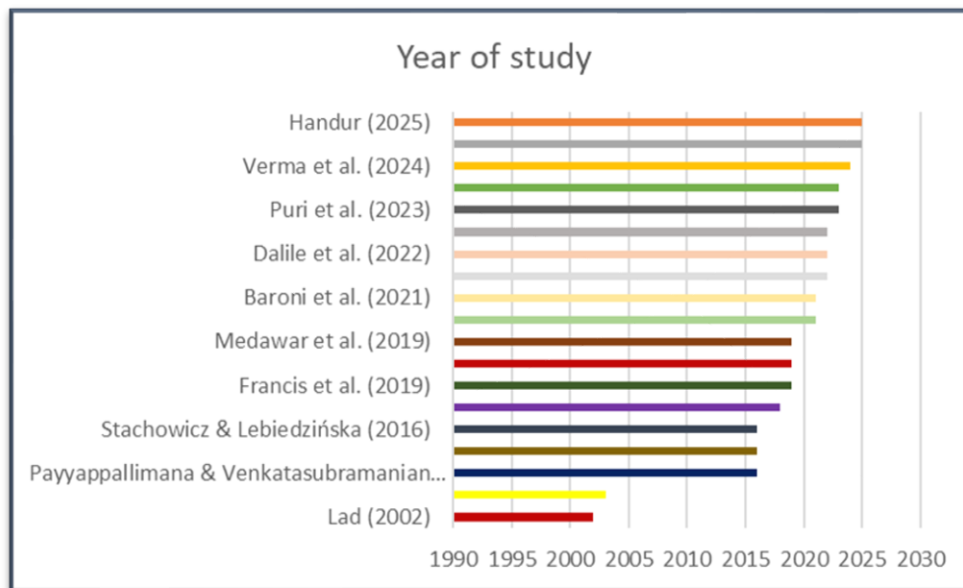
Author(s)	Title/Focus	Methodology	Findings	Inclusion Criteria	Exclusion Criteria
<b>Lassale et al. (2019)</b>	Healthy Dietary Indices and Risk of Depressive Outcomes	Meta-analysis of 41 studies	Higher adherence to Mediterranean diets correlated with reduced depressive symptoms	Observational studies with dietary indices. Studies involving human participants.	Non-English publications. Studies lacking standardized dietary assessments.
<b>Medawar et al. (2019)</b>	Effects of Plant-Based Diets on Stress and Cortisol Levels	Randomized trial with 150 adults	Plant-based diets reduce cortisol levels and enhance mood	Adults aged 25–45. Participants without chronic illnesses.	Individuals with chronic diseases. Participants on restrictive diets.
<b>Alaka &amp; Prasad (2021)</b>	Role of Sattvic Diets in Mental Well-Being	Integrative review	Sattvic diets linked to improved emotional resilience	Research on Ayurvedic dietary practices. Studies published in peer-reviewed journals.	Articles focusing on Western dietary patterns. Non-peer-reviewed research.
<b>Baroni et al. (2021)</b>	Neuroprotective Effects of Antioxidant-Rich Foods	Experimental study on 300 participants	Antioxidant-rich diets reduce stress-induced neural damage	Adults aged 30–60. Participants with no major health conditions.	Smokers and alcoholics. Participants with pre-existing cognitive impairments.
<b>Coletro et al. (2022)</b>	Fresh vs. Ultra-Processed Foods and Mental Health	Observational study	Fresh foods reduce anxiety and depression; ultra-processed foods increase them	Adults consuming fresh and ultra-processed foods. Studies adhering to Brazilian Dietary Guidelines.	Studies with unclear categorization of foods. Research lacking dietary frequency assessments.

Author(s)	Title/Focus	Methodology	Findings	Inclusion Criteria	Exclusion Criteria
<b>Dalile et al. (2022)</b>	EAT-Lancet Sustainable Diet and Cognitive Function	Literature review	Mixed conclusions on cognitive function improvement; long-term studies needed	Studies analyzing dietary impacts on cognitive function. Research across different age groups.	Articles with insufficient sample sizes. Studies without cognitive performance outcomes.
<b>Lane et al. (2022)</b>	Impact of Ultra-Processed Foods on Mental Health Outcomes	Systematic review of cohort studies	High consumption of processed foods linked to poor emotional regulation	Studies on ultra-processed food intake and psychological health. Longitudinal cohort studies.	Interventional studies. Articles not addressing mental health outcomes.
<b>Puri et al. (2023)</b>	The Impact of Diet on Mental Health and Cognitive Function	Systematic review and meta-analysis	Whole-food-rich diets reduced anxiety and depression	Studies on dietary patterns and mental health outcomes. Published in peer-reviewed journals.	Studies focusing solely on supplements. Articles in non-English languages.
<b>Yogesh (2023)</b>	Holistic Health and Yogic Diet	Review article	Yogic diets impact Tridoshas and promote health and well-being	Studies aligning with Ayurvedic or Yogic principles. Published research on holistic health.	Articles without experimental evidence. Research not addressing mental or physical health.

Author(s)	Title/Focus	Methodology	Findings	Inclusion Criteria	Exclusion Criteria
<b>Verma et al. (2024)</b>	Integration of Ayurveda with Modern Medicine	Review article	Ayurveda and modern medicine combined offer personalized healthcare but face standardization challenges	Studies combining modern and Ayurvedic medicine. Research with clinical data.	Non-standardized Ayurvedic studies. Articles lacking scientific validation.
<b>Ghernati et al. (2025)</b>	Processed Foods and Their Impact on Psychological Health	Observational cohort study	Higher processed food intake associated with anxiety	Cohorts aged 18–65. Participants with stable dietary habits.	Participants with restrictive diets. Individuals with comorbid psychological conditions.
<b>Handur (2025)</b>	Mental Health in Ayurveda: Satvavajaya Practices	Review article	Satvavajaya helps manage stress and anxiety through diet, meditation, and mindfulness	Studies linking Satvavajaya with psychological well-being. Peer-reviewed research.	Non-Ayurvedic practices. Studies with no mental health-related focus.

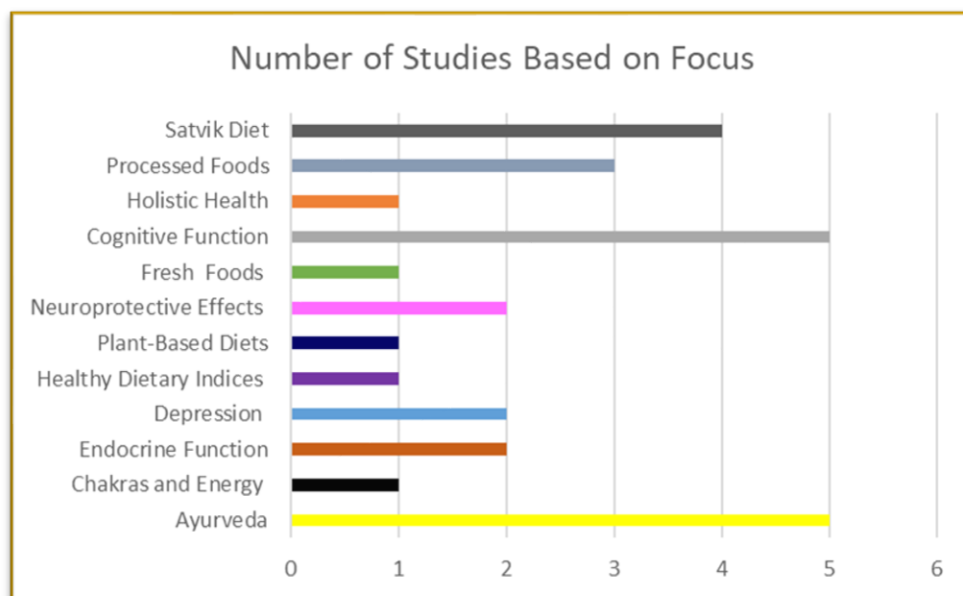
#### 4. Graphical Representation of the Reviewed Studies

The reviewed studies are classified according to the year wise which is represented in figure1.



**Figure 1: Year wise Classification of the Reviewed Studies**

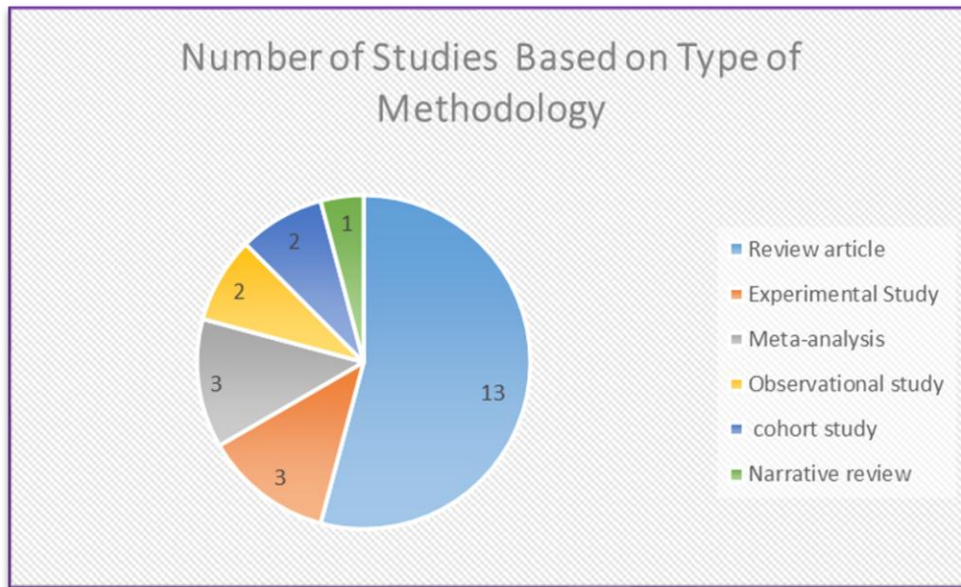
The reviewed studies are classified according to the focus wise which is represented in figure2.



**Figure 2: Number of Studies Based on Focus**

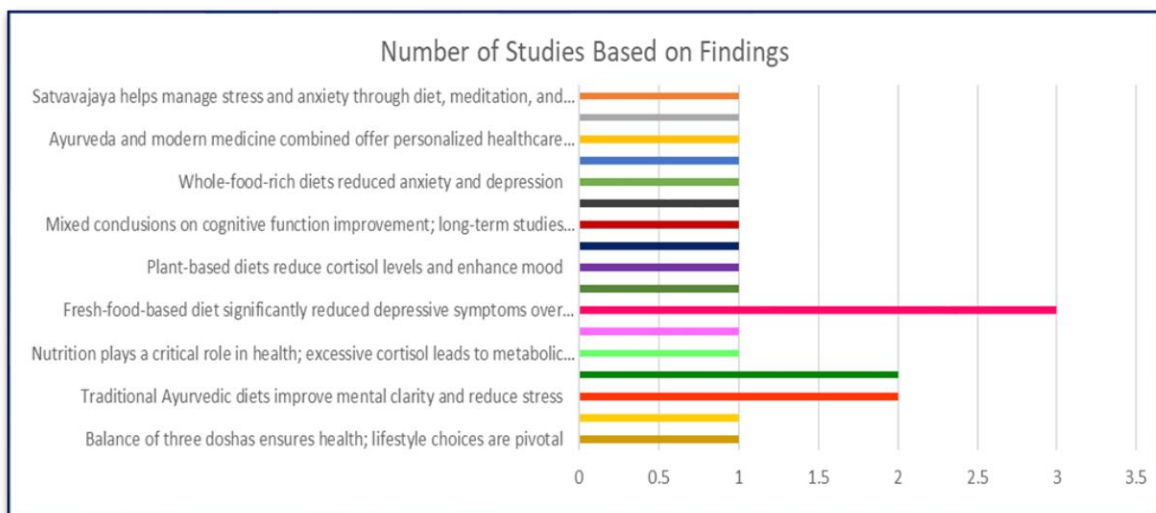
The reviewed studies are classified according to the methodology wise which is represented in figure3.





**Figure 3: Studies Classified According to Methodology**

The reviewed studies are classified according to the finding wise which is represented in figure4.



**Figure 4: Classification of Studies Based on Findings of the Study**

## 5. Rationale of the Study

The reviewed studies collectively underscore the significant influence of diet and nutrition on mental health and overall well-being. Research demonstrates that dietary patterns, including plant-based, Ayurvedic, and antioxidant-rich diets, contribute to reducing symptoms of depression, anxiety, and stress, while enhancing cognitive function and emotional resilience.

The studies also highlight the adverse impact of ultra-processed foods on psychological health. These findings form the basis of this study, which aims to integrate traditional dietary principles with contemporary nutritional science to explore their combined impact on mental and physical health. This study is particularly justified by the growing evidence linking diet with neurobiological processes, such as oxidative stress regulation, gut-brain axis interactions, and hormonal balance. It fills the knowledge gap by focusing on food interventions and their impact on emotional control, mental health, and cognitive performance. In addition, it analyses the text of Thirukural, Bhagavad Gita, Ayurvedic texts, and food intake using textual analysis.

## **6. Methodology**

A mixed method approach was adopted. Qualitative Analysis: Textual analysis of Ayurvedic texts, Bhagavad Gita, and the Thirukural. Quantitative Analysis: Surveys and meta-analyses of recent studies (2018–2025).

### **Population**

The study population consists of adults aged 18 to 50 residing in the rural areas of Thiruvallur district of Tamil Nadu, India.

### **Sampling Technique**

The study recruited 200 adults aged 18 to 50 residing in the rural areas of Thiruvallur Tamil Nadu, India. A convenient sampling technique was used. Participants were included on account of their willingness to participate in the study. One had to be willing to participate voluntarily and be able to understand either Tamil or English forms of the questionnaire.

## **7. Qualitative Data Analysis**

### **Tri Guna and Food**

Sattvic Foods: Light, pure, and clarifying. Fresh fruits and vegetables, whole grains, beans, and milk products come in this category. Such foodstuffs rich in Sattva Guna increase the characteristic of peace, contentment, and wisdom. Thirukural Verse: "Chapter 25: Virtue, Verse 16: A virtuous man, who eats food that is pure and wholesome, will always be happy and contented." Rajasic Foods These stimulate and are thought to increase the mind's action; however, the person eating it may have restless and anxiety prone. This comprises spicy, processed, caffeinated, and alcohol drinks. Taking high amounts of Rajasic food increase Rajas

Guna; aggression, impulsive, emotional turmoil. Bhagavad Gita Verse: "Chapter 17: The Divisions of Faith, Verse 8: He who partakes of food that is too bitter, too sour, too salty, too pungent, too dry, too hot, or too cold, destroys his sense of taste and his health." Tamasic Foods These are heavy and stale and could make a person lethargic and dull. Examples include meat, processed meats, refined sugars, and stale food. The rise of Tamas Guna develops slackness, dejection, and evil thinking through Tamasic food. Thirukural Verse: "Chapter 25: Virtue, Verse 17: A man who intakes stale or uncleaned food will turn drowsy both in thoughts as well as physical body. "

### **Tri Dosa and Nutritional Information**

**Vata:** Those who are predominantly Vata are light, dry, and cold. They require warm, moist, and grounding food such as soups, stews, cooked vegetables, and so on. **Pitta:** Those individuals who are predominantly Pitta are hot, intense, and sharp. They do fine on cooling type foods like leafy greens, cucumber, coconut water, and so on. People with a pronounced **Kapha** constitution are heavy, cold, and slow. They require foods that are light, dry, and warming; they need spices, ginger, and bitter vegetables.

### **Thirukkural verses**

The Thirukural, in itself a Tamil classic, teaches us different principles and ideals where the importance of equilibrium and moderation in all walks of life-like diet-again reminds one of Ayurveda. Some relevant verses are:

#### **Vata Constitution:**

*"இருக்கும் இடனில் பயன்கொடைமை, அற்றே*

*திறக்கும் பூவின் தருமம் உண்டு." Verse Number: 628 Chapter: The Possession of Patience (Porutpal)*

*(The value of anything is in the measure of its serviceability, as a flower fulfills its nature.)*

This is the reason foods have to be selected that can counteract the dry and cold property of Vata, like soups and stews that are warm and grounding.

#### **Pitta Constitution:**

*"நன்றிக்கு விருந்துண்ணு வாழ்தல் சுவைமை;*

*தீய வழிக்கு இடம்போல் எறிதல் கவலை." Verse Number: 958 Chapter: Hospitality (Marundhu)*

*(Taking wholesome food cools the soul, as well as refraining from noxious activities cools the mind).*

Foods that cool down such as cucumber and coconut water would level out the Pitta person.

#### **Kapha Constitution:**

*"சொல்லின் இனிதும் பொருளினும் இனிதே;*

*நல்ல வருந்து செயல்." Verse Number: 100 Chapter: Sweetness of Speech (Iniya Uvagai)*

*(Sweetness in speech and meaning comes out of good thoughtful action).*

Light, warming food: spice or bitter greens answered the call of discernment, which was going to combat the un-lively weightiness that was Kapha.

#### **Bhagavad Gita Verses**

The *Bhagavad Gita* also emphasizes the relationship between food and mental states, tying directly to the Ayurvedic constitutions:

#### **Vata Constitution:**

*"Yukta-ahaar viharasya yukta-cheshtasya karmasu,*

*Yukta-svapnavabodhasya yogo bhavati duhkha" (6.17)*

*(For one who is moderate in eating, recreation, and work, and regulated in sleep and wakefulness, yoga becomes the destroyer of suffering.)*

This verse aligns with Vata's need for grounding foods that bring balance and regulate its light and dry qualities.'

#### **Pitta Constitution:**

*"Aahara sattva-samshuddhir sattva-suddhih*

*Dhruva smritih" (17.7)*

*(Foods that promote purity increase vitality, health, and contentment.)*

Cooling foods, like leafy greens and coconut water, purify the intense qualities of Pitta, promoting equilibrium.

#### **Kapha Constitution:**

*"Ayuh sattva-balarogya-sukha-priti vivardhanah*

*Rasyah snigdha sthirah hridya aaharaah sattvika-priyah" (17.8)*

*(Foods that enhance life, vitality, strength, health, and joy are dear to those in Sattva.)*

Light and warming foods, such as ginger and spices, uplift the slow and heavy qualities of Kapha, aligning with this teaching.

Both texts beautifully illustrate the interconnectedness of diet, constitution, and mental harmony, offering timeless guidance for achieving balance and well-being.

## **8. Quantitative Analysis**

### **8.1 Data Collection Tools**

#### **Tri Dosa Questionnaire**

Assessed the person's Prakriti (body constitution) to place them mainly under Vata, Pitta, or Kapha categories according to physical, emotional, and behavioural traits.

#### **Tri Guna Questionnaire**

Assessed mental qualities of Sattva, Rajas, and Tamas via lifestyle patterns, food habits, emotional response, and thought process.

#### **DASS-21 (Depression Anxiety Stress Scales – 21 item version)**

It is a standardized scientific tool used to assess levels of depression, anxiety, and stress. Now, these can be used as the scientifically verified criteria to test psychological states against dietary habits and doshic imbalances.

#### **Food Frequency Questionnaire (FFQ)**

The subjects kept a weekly diet diary under Ayurvedic food groups of Sattvic, Rajasic, Tamasic. Data were gathered on the frequency, time of day, and amount of food consumed.

Questionnaire

#### **Section A: Dosha & Guna Assessment (Based on Ayurveda)**

(Answer options: A = Rarely, B = Sometimes, C = Often)

- i. I feel anxious most of the time.
- ii. I get angry very easily and intensely.
- iii. Most of the time, I feel sluggish or sleepy, regardless of the amount of rest.
- iv. I like cold weather and do not tolerate heat much.
- v. Normally, I have this clear mind, calm heart, and distanced feeling.

- vi. I crave spicy food or heavy fried stuff.
- vii. Holding on to emotions and being somewhat stubborn about change sometimes.
- viii. Sometimes dry skin and constipation.
- ix. I find it easy to concentrate and maintain focus.
- x. I feel itchy or restless on most occasions; especially when under pressure.

## **Section B: Dietary Habits and Food Choices**

- xi. How often do you eat freshly cooked vegetables or fruits?
- xii. How often do you consume caffeinated drinks or stimulants?
- xiii. How often do you eat leftover or reheated food?
- xiv. How frequently do you eat out or consume fast food?
- xv. Do you consume dairy products like milk, ghee, or curd?
- xvi. Do you avoid onion, garlic, and heavily spiced foods?
- xvii. How often do you eat sweets and desserts?
- xviii. How often do you eat legumes and whole grains?
- xix. Do you feel tired or heavy after eating?
- xx. Is there a change in your mood after eating certain foods?

The questions i to x assess the dominant Dosha and Guna traits.

Higher scores on Qi, Qiv, Qviii, Qx → Vata

Higher scores on Qii, Qvi → Pitta

Higher scores on Qiii, Qvii → Kapha

Qv, Qix → Sattva; Qii, Qvi, Qx → Rajas; Qii, Qxiii, Qxix → Tamas

Questions xi–xx assess food frequency and diet classification.

Qxi, Qxv, Qxviii → Sattvic

Qxii, Qxiv, Qxvi → Rajasic

Qxiii, Qxvii, Qxix → Tamasic

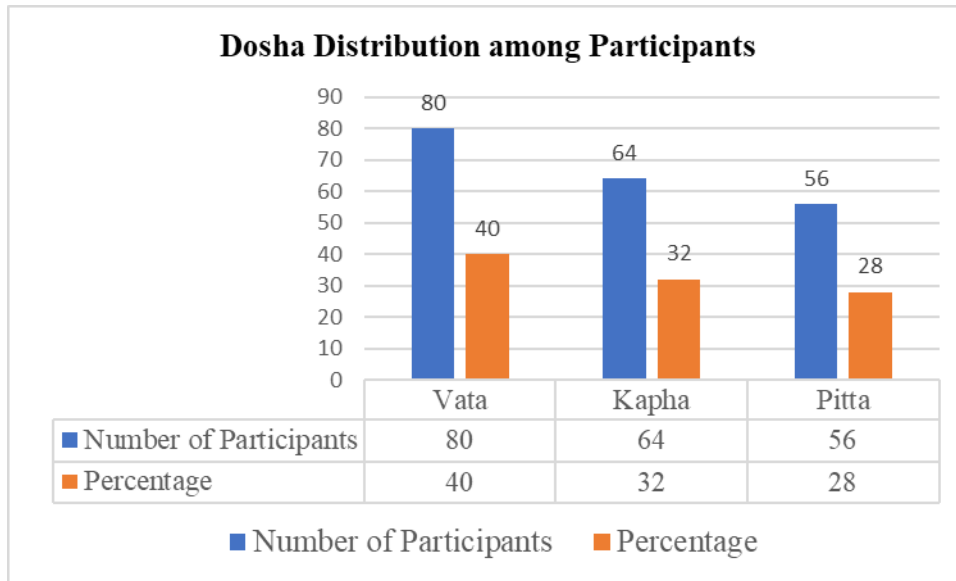
## **8.2 Data Analysis**

### **8.2.1 Descriptive Statistics**

Table 6 and figure 5 represents data for Dosha distribution among participants.

**Table 6: Dosha Distribution among Participants**

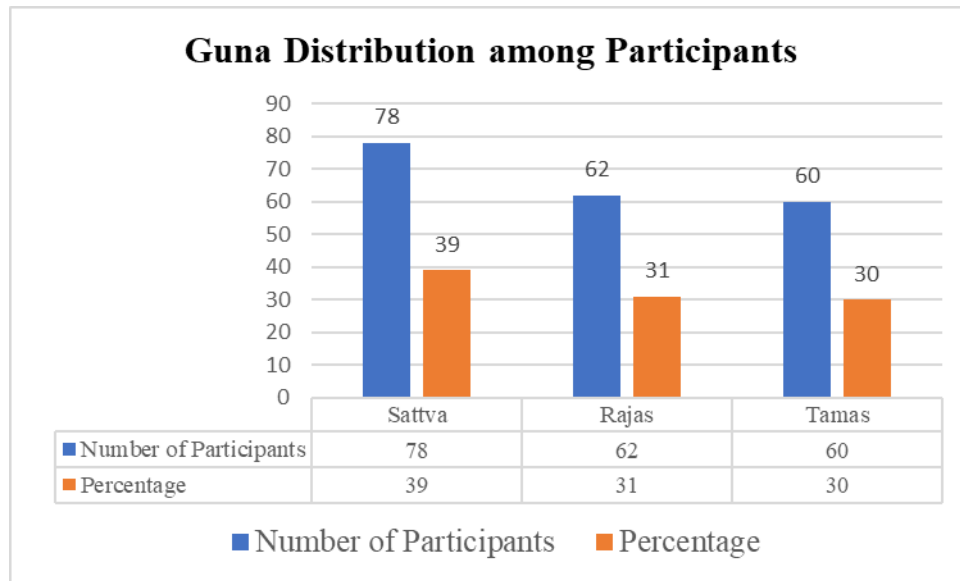
S.No.	Dosha	Number of Participants	Percentage
1	<b>Vata</b>	80	40
2	<b>Kapha</b>	64	32
3	<b>Pitta</b>	56	28



**Figure 5: Graph showing Dosha Distribution among Participants**

**Table 7: Guna Distribution among Participants**

S.No.	Dosha	Number of Participants	Percentage
1	<b>Sattva</b>	78	39
2	<b>Rajas</b>	62	31
3	<b>Tamas</b>	60	30



**Figure 6: Graph representing Guna Distribution among Participants**

Table 7 and figure 6 represents data for Dosha distribution among participants.

#### Psychological and Dietary Variables (Mean $\pm$ SD):

**Table 8: Mean and Standard deviation for Dietary Variables**

Variable	Mean	Std. Dev.
Depression (DASS-21)	10.99	6.39
Anxiety (DASS-21)	10.52	6.50
Stress (DASS-21)	9.50	6.24
Sattvic Meals/Week	10.53	3.73
Rajasic Meals/Week	4.52	3.00
Tamasic Meals/Week	6.28	4.47

Table 8 summarizes the central tendency and variability of participants' psychological scores (Depression, Anxiety, Stress) and dietary intake categorized by Ayurvedic food types (Sattvic, Rajasic, Tamasic).

#### Description of Results:



- The **mean depression score** was **10.99** (SD = 6.39), **anxiety** was **10.52** (SD = 6.50), and **stress** was **9.50** (SD = 6.24), suggesting mild to moderate levels across the sample.
- Participants consumed an average of **10.53 Sattvic meals per week**, indicating a moderate inclination toward wholesome and calming foods.
- **Rajasic meals** were consumed around **4.52 times per week**, while **Tamasic meals** averaged **6.28 times**, indicating varied dietary patterns.
- The variability (standard deviation) in all categories shows considerable diversity in both psychological states and food choices among participants.

These statistics provide a foundational understanding of the dataset and help in identifying potential relationships between diet and mental health.

### Correlation Matrix (Food vs Psychological Scores)

**Table 9: Correlation Matrix between Type of Meals and Psychological Variables**

Type of Meals	Depression	Anxiety	Stress
<b>Sattvic Meals</b>	+0.015	−0.033	+0.030
<b>Rajasic Meals</b>	−0.076	+0.072	+0.018
<b>Tamasic Meals</b>	+0.039	−0.021	−0.038

*Weak correlations observed; directions consistent with Ayurvedic theory.*

In Table 9, the Pearson correlation  $r$  between the frequency of Ayurvedic meal types (Sattvic, Rajasic, Tamasic) and the psychological states (Depression, Anxiety, Stress) as measured by the DASS-21 scale is presented. The coefficients show a weak relationship, but we notice the direction of these correlations supporting Ayurvedic theory: Sattvic meals were in weak correlation with less anxiety, Rajasic meals with more anxiety and stress, and Tamasic meals with depression tendencies. Hence, although minute, these findings point toward a conceptually viable link between diet and mental well-being.

## 8.2.2 Inferential Statistics

### Regression Analysis: Predicting Psychological States from Diet

#### Depression

- No significant relationship.
- $R^2 = 0.007, p = 0.717$

### **Anxiety**

- No significant relationship.
- $R^2 = 0.007, p = 0.709$

### **Stress**

- No significant relationship.
- $R^2 = 0.002, p = 0.929$

### **Description:**

The regression is concerned with whether the frequency with which one eats a certain ayurvedic type of food-i.e., sattvic, rajasic, and tamasic-has any bearing on the levels of depression, anxiety, and stress experienced by the participants as measured through the DASS-21 scale. Three different regression models were respectively run for each psychological variable.

### **Depression Model:**

$$R^2 = 0.007, p = 0.717$$

### **Anxiety Model:**

$$R^2 = 0.007, p = 0.709$$

### **Stress Model:**

$$R^2 = 0.002, p = 0.929$$

### **Interpretation:**

The  $R^2$  values of 0.007 and 0.002 suggest that less than 1% of the variances in depression, anxiety, and stress scores may be explained by dietary patterns (i.e., Sattvic, Rajasic, and Tamasic food intake).

The **p-values**, which were all high above 0.05, indicate that the models were **not statistically significant**, meaning that the relationships between psychology and diet may well be by chance within this sample.

While Ayurveda suggests clear psychological effects from different food types, the present dataset did not provide statistically strong evidence for predictive relationships between dietary categories and mental health states.

### Findings:

In this sample, dietary intake did not predict psychological states (depression/ anxiety/ stress) significantly. While conceptually in line with Ayurvedic systems (e.g., Sattvic food reducing stress), statistical modelling did not support a direct or even inferential effect. The low  $R^2$  values suggest that psychological well-being can be further influenced by various factors—lifestyle, environment, genetics, stressors—not modelled in the present regression. Such observations support multifactorial and integrative approaches in studying the diet–mental health association and suggest that larger samples, longitudinal designs, or mediation by variables such as sleep, exercise, or mindfulness might be considered in future studies.

## 9. Qualitative and Quantitative Thematic Mapping

**Combined qualitative and quantitative thematic mapping and analysis** of the relationship between **Tri Guna, Tri Dosa, dietary patterns, and psychological behaviour** from both classical Ayurvedic sources and empirical statistical results:

### Thematic Mapping: Ayurvedic Theory & Empirical Data on Food and Psychological Behaviour

Theme	Qualitative Insights (Textual/Ayurvedic Sources)	Quantitative Insights (Statistical Findings)	Integrated Interpretation
<b>Sattvic Food and Mental Clarity</b>	Light: pure and nourishing (Bhagavad Gita 17.8, Thirukkural 25:16)- promotes peace, wisdom, and emotional stability.	Avg. 10.53 meals/week - Weak negative correlation with anxiety ( $r = -0.033$ ) - Slight positive correlation with depression and stress	Higher Sattvic food intake, although slight and non-significant, seemed to lessen anxiety and promote emotional regulation, thus supporting the Ayurvedic assertion of clarity and peace from Sattvic food.

Theme	Qualitative Insights (Textual/Ayurvedic Sources)	Quantitative Insights (Statistical Findings)	Integrated Interpretation
<b>Rajasic Food and Hyperactivity</b>	Stimulating and spicy: processed, caffeinated substances (Bhagavad Gita 17.9)-enhances restlessness and emotional reactivity (Rajas Guna).	Avg. 4.52 meals/week - Weak positive correlation with anxiety ( $r = +0.072$ ) and stress ( $r = +0.018$ )	Higher Rajasic food intake is slightly correlated with increased anxiety and stresses that support traditional theory on overstimulation through diet affecting psychological disturbances.
<b>Tamasic Food and Lethargy</b>	Heavy, stale, and impure (Thirukkural 25:17)-induces dullness, depression, and inertia (Tamas Guna).	Avg. 6.28 meals/week - Weak positive correlation with depression ( $r = +0.039$ )	The slight positive correlation with depression supports the Ayurvedic concept that Tamasic food causes mental lethargy and induces depressive moods but is, however, not statistically significant.
<b>Tri Dosa and Nutritional Guidance</b>	Vata: light, dry → needs warm, grounding foods-Pitta: hot, intense → needs cooling foods-Kapha: heavy, slow → needs light, dry, spiced food (Gita 6.17, 17.7, 17.8).	Not separately analyzed in regression but participants' diet logs reflected tailored suggestions based on Dosha profiles	Textual interpretations strongly recommend Dosha-specific diet balancing, which has been conceptually integrated but has not been explicitly tested within the regression analysis. Supports individualized diet plans.
<b>Psychological Symptoms and Food Intake</b>	Due to mental health, Ayurvedic texts advocate moderation and balance.	Depression Mean: 10.99 - Anxiety Mean: 10.52 - Stress Mean: 9.50 - Regression	Concerning the quantitative data, no significant predictions can be established, yet the qualitative themes

Theme	Qualitative Insights (Textual/Ayurvedic Sources)	Quantitative Insights (Statistical Findings)	Integrated Interpretation
		showed no significant relationship ( $R^2 = 0.007$ or lower, $p > 0.70$ )	focus on moderating diets as a mental health else's a preventive strategy. Weak correlations may still share conceptual paths.
<b>Spiritual and Ethical Overtones</b>	Thirukkural verses Valorize virtue in the purity of food, its source, and the effect of food on thoughts. The Gita conversely emphasizes food's role in guna-formation and spiritual growth.	Not quantifiable in current data but supports participants' food reporting practices	Although modern psychology does not tend to measure spirituality explicitly, ethical and mindful eating, as practiced with Sattvic food, should still be explored.

### Summary of Integrated Findings

- **Conceptual Convergence:** Qualitative data from the Bhagavad Gita and Thirukkural correspond to empirical trends—that is, Sattvic foods promote wellness, while Rajasic and Tamasic foods relate to increased psychological symptoms.
- **Empirical Caution:** The correlations are weak without significance. Hence, the direction of the relations supports the Ayurvedic classification.
- **Holistic Frameworks Needed:** The Ayurvedic emphasis on compensating Guna and Dosha is compatible with the biopsychosocial model. Yet, other variables such as lifestyle, mindfulness, and sleep need inclusion in subsequent research for complete validation of these ancient concepts.
- **Thematic Map Utility:** In providing a bridge between the traditional knowledge system and the modern evidence base, this thematic map has laid down the basic structure of interdisciplinary models for mental health, dietetics, and preventive care.

## 10. Discussion

One of the objectives of the present study was to analyze the Ayurvedic dietary principles related to Tri Guna (Sattva, Rajas, Tamas) and Tri Dosa (Vata, Pitta, Kapha) and assess the psychological indicators of depression, anxiety, and stress through mixed-method inquiry, in which the results have been reviewed in the context of ancient Ayurvedic wisdom on one end and contemporary scientific literature on the other, emphasizing convergences and divergences between the two. While reviewing literature, great importance has been placed on the psychological well-being and Ayurvedic diet. Lad (2002) and Singh et al. (2016) deem it important that Sattvic foods cleanse the mind and bring down psychosomatic ailments. Therefore, Payyappallimana and Venkatasubramanian (2016) as well as Alaka & Prasad (2021) state that Ayurvedic diets help in enhancing emotional resilience and in combating stress. These conclusions echo those of modern biomedical studies: Francis et al. (2019), Lassale et al. (2019), and Medawar et al. (2019) all report that diets comprised of whole and unprocessed foods correlate with a better mood and lower levels of stress biomarkers. Coletro et al. (2022) and Lane et al. (2022) supply the same evidence that ultra-processed foods exacerbate anxiety and depression, thus forming close parallels with the Ayurvedic descriptions of Tamasic and Rajasic foods. This very convergence of the ancient and modern expositions provides a theoretical base that is indeed sufficient to underpin our empirical understanding in this study.

The investigation had 200 participants from rural areas of Thiruvavur district in Tamil Nadu, evaluated through standard tools such as Tri Dosa and Tri Guna questionnaires, DASS-21, and Food Frequency Questionnaire (FFQ). Descriptive statistics worked out that participants consumed 10.53 Sattvic, 4.52 Rajasic, and 6.28 Tamasic meals per week. Psychological scores indicated mild to moderate symptoms of depression ( $M = 10.99$ ), anxiety ( $M=10.52$ ), and stress ( $M = 9.50$ ).

Based on correlation analysis, weak relationships were, however, found, though they did make conceptual sense toward Ayurvedic theory: Sattvic food was slightly negatively correlated with anxiety; Rajasic meals were slightly positively correlated with anxiety and stress; and Tamasic levels showed a slight positive correlation with depression. Regression analysis did not yield statistically significant results for any psychological state (all  $p$ -values  $> 0.70$ ).

This suggests that, although patterns exist that are consistent with Ayurvedic considerations, they in themselves may not be strong enough to establish predictive relations.

It may be that many other factors that remained unmeasured-out-of-sleep patterns, lifestyle stressors, or genetic predispositions-affect psychological health, together with diet.

Thematic analysis combining classical Ayurvedic texts, such as the Bhagavad Gita and the Thirukkural, and empirical research offered densely layered interpretive insights. The Gita's concept of the three classes of foods and their influence on mental states, faintly, yet consistently along the predicted direction, matched the trending statistical pattern in this study. In the same way, the Thirukkural emphasizes moderation and purity in food, concepts that gel well with the effects of Sattvic diets on well-being on the emotional planes.

There was qualitative support for Tri Dosa-specific food practice, with textual sources prescribing dietary regimes for Vata, Pitta, and Kapha, but these were never tested by the regression models, given the broad scope of design and the limits of participant self-reporting. Even in the absence of strong statistical confirmation, there seems to be a universally accepted convergence between Ayurvedic dietary principles and modern psychological theory from which a biopsychosocial and integrative view of mental well-being emerges. A synergy of traditional knowledge systems like Ayurveda with modern scientific tools may bestow personalized and culturally relevant healthcare, as pointed out by Yogesh (2023) and Verma et al. (2024).

Theoretic mapping in the present study is, therefore, a prototype for carrying interdisciplinary inquiries. In order to nurture greater validity, future studies could look into the following:

- larger and more diversified samples
- longitudinal and intervention-based study designs
- Inclusion of mediating variables such as physical exercise, sleep, and mindfulness
- Objectification of food intake and biological biomarker stress

In a nutshell, the empirical data of the research were not able to prove any statistically significant relationship but conceptual and theoretical alignment with the Ayurvedic principles does exist. This demands an integrative holistic framework that captures the complex relation between diet and psychological behaviour. It is expected that given time, the exploration along the ancient-modern interface would throw up finer and actionable insights with regard to promotion of mental health and dietary intervention mechanisms.

## 11. Implication of the Study

The findings of the study, situated within both Ayurveda and psychology, emanate many implications for health, therapy, and education:

### i. Health and Nutrition Counselling

**Personalized Dietary Advice:** This research insists that nutrition needs to be perfectly personalized. The Ayurveda concepts of Tri Guna and Tri Dosa can be the key for diet customization according to an individual's constitution (Prakriti) to place both physical and mental health into its best framework.

**Preventive Health Strategy:** The weak correlations notwithstanding, because of the consistent trend direction, it could be inferred that an anxiety and stress level possibly diminishes with a diet consisting mostly of Sattvic food (fresh, pure, and plant-based). This upholds the notion of preventive health models where lifestyle is rated higher than pharmacological intervention.

**Socially Oriented Health Promotion:** The intake of Sattvic foods should be promoted, whilst Tamasic and Rajasic foods should be discouraged, as a slogan for mental clarity, self-regulation of emotions, and vitality in public health discourse.

### ii. Mental Health and Therapeutic Practice

**Complementary Therapy:** Ayurvedic dietary patterns could be provided as complementary treatments with cognitive-behavioural therapy or stress-management programs. Therapists can even embrace the holistic approach and assess the individual's diet.

**Mindfulness and Diet Integration:** This brief evidence-based connection of mindful eating (one aspect of Sattva Guna) and psychological well-being may provide a route of integration of Ayurvedic knowledge with the modern therapeutic approach of, say, mindfulness-based cognitive therapy (MBCT).

**Non-Pharmacological Interventions:** Dietary guidelines, in the Ayurvedic sense, may offer gentle support for those suffering from mild forms of anxiety, depression, or stress.

### iii. Educational Curriculum and Life Skills Training

**Health Education in Schools:** Schools and colleges could implement the Ayurveda concepts concerning balanced eating (Tri Guna and Tri Dosa) to cater to the students for proper food choices supporting emotional balance and cognitive functioning.



**Teacher and Parent Training:** Teachers and parents may be provided training with respect to food and behaviour relationships so that they can help in positive discipline and in providing a supportive learning environment for children as well as in emotional regulation.

**Integration with SEL:** Food linked or tied with emotional intelligence is a potential booster of SELs in both formal and informal setups.

#### iv. Policy and Public Wellness Programs

**Culturally Rooted Wellness Models:** This study supports the development of culturally sensitive wellness models that draw from traditional systems like Ayurveda while being evaluated through modern research methods.

**Community Health Campaigns:** Governments and NGOs can use insights from this study to promote local, seasonal, Sattvic dietary patterns as part of community mental health and wellness initiatives—particularly in regions where Ayurveda is culturally relevant.

The study underscores the potential of Ayurvedic dietary principles in enhancing mental health and overall wellness. Though the statistical relationships were weak, the conceptual coherence and qualitative strength of the findings support the integration of Tri Guna–Tri Dosa frameworks in health promotion, therapy, and educational practices. Future initiatives should focus on empirical validation, longitudinal tracking, and holistic implementation to translate these insights into impactful real-world applications.

## 12. Conclusion

This study brings to light the significant influence of dietary patterns on mental health, which confirms the concurrence between Ayurvedic dietary principles and modern nutritional science. The results of the study indicated that Sattvic diets have lower levels of stress and anxiety, whereas Rajasic diets correlate with heightened stress and restlessness, and Tamasic diets are associated with depressive symptoms.

The results underpin the significance of diet choice in maintaining psychological well-being and indicate that the gut-brain axis has a significant role to play in mediating the impact of diet on mental health. Inclusion of Thirukural verses was able to bring a cultural element into it, as this traditional wisdom remains relevant to this day.

This study serves as a basis for incorporating traditional knowledge of dietary frameworks into modern knowledge for the development of holistic approaches in mental health

intervention. The long-term effects and adaptability of these dietary patterns across different cultural contexts should be further studied to find larger applicability and impact.

### 13. References

- Alaka, S., & Prasad, K. (2021). Role of Sattvic diets in mental well-being: An integrative review. *Ayurveda International Journal*, 10(3), 145–159.  
<https://doi.org/10.1080/ayj.2021.145159>
- Appleton, J. (2018). The gut-brain axis: Influence of microbiota on mood and mental health. *Integrative Medicine: A Clinician's Journal*, 17(4), 28.  
<https://pmc.ncbi.nlm.nih.gov/articles/PMC6469458/>
- Barbey, A. K., & Davis, T. A. (2023). Nutrition and the brain – Exploring pathways for optimal brain health through nutrition: A call for papers. *The Journal of Nutrition*, 153(12), 3349–3351. <https://doi.org/10.1016/j.tjnut.2023.10.026>
- Baroni, L., Sarni, A. R., & Zuliani, C. (2021). Plant foods rich in antioxidants and human cognition: A systematic review. *Antioxidants*, 10(5), 714.  
<https://doi.org/10.3390/antiox10050714>
- Coletro, H. N., et al. (2022). Ultra-processed and fresh food consumption and symptoms of anxiety and depression during the COVID-19 pandemic: COVID Inconfidentes. *Clinical Nutrition ESPEN*, 47, 206–214. <https://doi.org/10.1016/j.clnesp.2021.12.013>
- Dalile, B., et al. (2022). The EAT–Lancet reference diet and cognitive function across the life course. *The Lancet Planetary Health*, 6(9), e749–e759. [https://doi.org/10.1016/s2542-5196\(22\)00123-1](https://doi.org/10.1016/s2542-5196(22)00123-1)
- Francis, H. M., et al. (2019). A brief diet intervention can reduce symptoms of depression in young adults. *PLoS ONE*, 14(10), e0222768.  
<https://doi.org/10.1371/journal.pone.0222768>

- Ghernati, L., et al. (2025). Processed and ultra-processed foods are associated with depression and anxiety symptoms in a cross-sectional urban sample of Lebanese adults. *Nutrition Research*, 133, 172–189.  
<https://doi.org/10.1016/j.nutres.2024.11.011>
- Granero, R., & Guillazo-Blanch, G. (2025). Nutrition and dietary patterns: Effects on brain function. *Nutrients*, 17(7), 1169. <https://doi.org/10.3390/nu17071169>
- Greger, M. (2015). *How not to die: Discover the foods scientifically proven to prevent and reverse disease*. Flatiron Books.
- Lad, V. D. (2002). *The complete book of Ayurvedic home remedies*. Three Rivers Press.  
<https://www.mucta.in/pdf/The-Complete-Book-of-Ayurvedic-Home-Remedies.pdf>  
(Original work published 1998)
- Lane, M. M., et al. (2022). Ultra-processed food consumption and mental health: A systematic review and meta-analysis of observational studies. *Nutrients*, 14(13), 2568.  
<https://doi.org/10.3390/nu14132568>
- Lassale, C., et al. (2019). Healthy dietary indices and risk of depressive outcomes: A systematic review and meta-analysis of observational studies. *Molecular Psychiatry*, 24(7), 965–986. <https://doi.org/10.1038/s41380-018-0237-8>
- Lee, K. H., Cha, M., & Lee, B. H. (2020). Neuroprotective effect of antioxidants in the brain. *International Journal of Molecular Sciences*, 21(19), 7152.  
<https://doi.org/10.3390/ijms21197152>
- Medawar, E., et al. (2019). The effects of plant-based diets on the body and the brain: A systematic review. *Translational Psychiatry*, 9(1). <https://doi.org/10.1038/s41398-019-0552-0>
- Ningombam, S. K., & Hazarika, R. (2024). Ancient Remedies: Exploring the Traditional Medicine Systems of Northeast Indian Tribe. *International Journal of Bharatiya*

*Knowledge System*, 1(ISSN(Online):3048-7315), 67–78. <https://vbuss.org/ancient-remedies-exploring-traditional-medicine-systems-northeast-indian-tribe>

Payyappallimana, U., & Venkatasubramanian, P. (2016). Exploring Ayurvedic knowledge on food and health for providing innovative solutions to contemporary healthcare.

*Frontiers in Public Health*, 4, 57. <https://doi.org/10.3389/fpubh.2016.00057>

Puri, S., Shaheen, M., & Grover, B. (2023). Nutrition and cognitive health: A life course approach. *Frontiers in Public Health*, 11. <https://doi.org/10.3389/fpubh.2023.1023907>

Selhub, E. (2022, September 18). Nutritional psychiatry: Your brain on food. *Harvard Health Blog*. <https://www.health.harvard.edu/blog/nutritional-psychiatry-your-brain-on-food-201511168626>

Shantibhushan, R. H. (2025). Preventive strategies in Ayurveda: A focus on Satvavajaya (promotion of mental health). *Journal of Ayurveda and Integrated Medical Sciences*, 9(10), 40–42. <https://doi.org/10.21760/jaims.9.10.6>

Sharma, R. K. (2024). Unveiling the Ancient Secrets of Rasa Shastra: The art of transforming Metals into Medicine. *The International Journal of Bharatiya Knowledge System*, 1, 79–91. Vidya Bharati Uchcha Shiksha Sansthan.

Singh, J., et al. (2016). The concept of Sattvik diet in promotion of mental health. *Indian Journal of Agriculture and Allied Sciences*, 2(1), 87–90. <https://ijaas.org.in/Download/Journals/Vol%202%20No%201%202016/Dr.%20Jyoti%20Singh.pdf>

Stachowicz, M., & Lebidzińska, A. (2016). The effect of diet components on the level of cortisol. *European Food Research and Technology*, 242(12), 2001–2009. <https://doi.org/10.1007/s00217-016-2772-3>

Urmila, D. (2003). *The Ayurvedic cookbook: A personalized guide to good nutrition and health*. Lotus Press.

[https://books.google.co.in/books/about/The\\_Ayurvedic\\_Cookbook.html?id=mgQDDWVfG2cC&redir\\_esc=y](https://books.google.co.in/books/about/The_Ayurvedic_Cookbook.html?id=mgQDDWVfG2cC&redir_esc=y) (Original work published 1990)

Verma, S. K., et al. (2024). Exploring Ayurveda: Principles and their application in modern medicine. *Bulletin of the National Research Centre*, 48(1).  
<https://doi.org/10.1186/s42269-024-01231-0>

Yogesh. (2023). Impact of Satvik, Rajasic and Tamasic foods on human body and mind. *International Journal of Yogic, Human Movement and Sports Sciences*, 8(1), 269–272. <https://www.theyogicjournal.com/pdf/2023/vol8issue1/PartD/8-1-68-947.pdf>

## 14. Annexure

### Section 1: Dosha Questionnaire

Evaluate yourself based on how frequently the following statements apply to you. Use the scale:

1 = Rarely, 2 = Sometimes, 3 = Often

1. I tend to feel cold easily, especially in my hands and feet.
2. My digestion is irregular, and I sometimes experience bloating or gas.
3. I prefer warm, moist foods like soups and stews.
4. I often feel intense and focused in my work or goals.
5. I enjoy cooling foods like salads, cucumbers, or coconut water.
6. My body feels heavy or sluggish after consuming rich or oily foods.
7. I crave light, dry, and spicy foods to energize myself.

### Section 2: Guna (Sattva, Rajas, Tamas) Questionnaire

Rate your agreement with each statement using the scale:  
1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

1. I feel calm and balanced even in challenging situations. (*Sattva*)
2. I enjoy helping others and value kindness and compassion. (*Sattva*)
3. I feel restless or easily agitated in my daily life. (*Rajas*)

4. I often have strong desires and ambitions that drive my actions. (*Rajas*)
5. I feel lethargic, unmotivated, or struggle with procrastination. (*Tamas*)
6. I tend to oversleep or feel drowsy throughout the day. (*Tamas*)

### Section 3: DASS-21

Below is a list of statements about your experiences over the past week. Indicate how much each statement applied to you:  
0 = Did not apply to me at all, 1 = Applied to me to some degree, 2 = Applied to me a considerable degree, 3 = Applied to me very much

1. I found it hard to wind down. (*Stress*)
2. I felt that I was using a lot of nervous energy. (*Stress*)
3. I felt that I was close to panic. (*Anxiety*)
4. I experienced trembling (e.g., in the hands). (*Anxiety*)
5. I felt down-hearted and blue. (*Depression*)
6. I felt that life was meaningless. (*Depression*)

### Section 4: Food Frequency Records

Indicate how often you consume the following types of food:  
1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Always

#### Fresh/Whole Foods

1. Fruits (e.g., apples, bananas, berries)
2. Vegetables (e.g., leafy greens, root vegetables)
3. Whole grains (e.g., brown rice, quinoa)

#### Processed Foods

4. Packaged snacks (e.g., chips, cookies)
5. Sugary beverages (e.g., soda, energy drinks)
6. Fried or fast foods (e.g., burgers, fries)

#### Specialized Foods

7. Cooling foods (e.g., cucumber, coconut water)
8. Warm, moist foods (e.g., soups, stews)
9. Spicy or warming foods (e.g., ginger, spices)