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The Role of Yogic Lifestyle and Balanced Nutrition in Preventing Lifestyle Diseases

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Abstract

India is currently witnessing a critical surge in lifestyle diseases (LDs), including Type 2 Diabetes, cardiovascular disorders, and obesity, driven by rapid urbanization, sedentary behaviors, and a nutritional shift towards processed, high-calorie foods. This paper examines the preventive potential of integrating a comprehensive Yogic lifestyle with balanced nutrition to mitigate this public health crisis. The study analyzes the physiological and psychological mechanisms of Yoga—encompassing Asanas, Pranayama, and the ethical disciplines of Yama and Niyama—demonstrating their efficacy in regulating the HPA axis, reducing stress, and improving metabolic markers. Furthermore, it evaluates the erosion of traditional, nutrient-dense Indian dietary patterns in favor of Westernized habits and argues for a return to whole-food-based nutrition. Synthesizing evidence from various intervention trials, the research highlights that combining Yogic practices with dietary discipline significantly lowers cardiometabolic risks and enhances mental well-being. The paper concludes by recommending the implementation of culturally adapted, community-based educational interventions to leverage these sustainable, cost-effective practices for national health promotion.

Keywords: Lifestyle Diseases, Yogic Lifestyle, Balanced Nutrition, Type 2 Diabetes, Public Health, Preventive Healthcare.

1. Introduction

People in India face rising health problems due to lifestyle and dietary changes. India ranks as the global diabetes capital, with the highest number of people with type 2 diabetes (T2D) expected in 2030. Overweight, obesity, and sedentary lifestyles are significant lifestyle risk factors for cardiovascular diseases (CVDs), chronic respiratory diseases, cancers, and mental illness. In India, the pestilent lifestyle diseases (LDs) include T2D, hypertension, CVDs, respiratory diseases, obesity, and stress (Nagarathna et al., 2019).

Changes in dietary habits and sedentary lifestyles are the two most contributing factors affecting the Indian populace, along with rapidly changing demographic, cultural, social, and economic factors. People's interventions like yoga practice, deep breathing exercise, a satvic diet, preventive healthcare, physical activities, mental awareness, and healthy lifestyle and nutrition possess a highly positive value in controlling lifestyle diseases with low cost (Sarvottam & Kumar Yadav, 2014).

2. Conceptual Framework: Lifestyle Diseases in the Indian Context

The concept of lifestyle diseases has acquired widespread popularity among health-conscious individuals. Poor dietary and lifestyle choices, social habits, and stressful lifestyles have brought about a new set of non-communicable diseases termed lifestyle diseases (Kumar et al., 2022). Therefore,

appropriate intervention and promotion of proper yogic lifestyle practices and tropical balanced nutrition might help cope with this menace perilously affecting public health.

The concept of lifestyle diseases holds greater relevance for developing countries, particularly India. The Brundtland commission report defines "A lifestyle disease is any disease, or condition, considerably caused by a person's lifestyle". According to this report, about 60 to 70% of deaths globally are due to these lifestyle diseases, leading to unnecessary deaths early in life compared to earlier historical epochs. Lifestyle diseases arise due to consumption patterns deviating from the traditional style, social habits like smoking, drug abuse, drinking, late-night functions, and celebratory cultural activities. These are grievous maladies, adversely affecting precious resources and causing existential dread to parents, cutting down worthy lives at their prime (Sarvottam & Kumar Yadav, 2014).

3. Yogic Lifestyle: Principles and Practices

Based on the Yogic philosophical text Yoga Sutras of Patanjali, a yogic lifestyle consists of two categories: Yama (restraints) and Niyama (observances). Yama (Ahimsa or non-violence; Satya or truthfulness; Asteya or non-stealing; Brahmacharya or celibacy; and Aparigraha or non-hoarding) emphasizes individual responsibilities in the social context, while Niyama (Shouch or cleanliness; Santosh or contentment; Tapas or austerity; Swadhyay or self-study of scriptures; and Ishvara-Pranidhan or surrender to God) addresses self-discipline.

Yogic practices strengthen self-control and restrain impulsive reactions to negative stimuli, ameliorating undesirable behaviors affecting health. The effect of yogic lifestyle on physical health via better decision-making (nutrition, sleep, substance use, activity choices) remains unstudied in India. Inculcating these principles in daily routines guides action towards healthier alternatives (C. Tiwari & M. Pandey, 2013).

3.1. Yama and Niyama in Daily Living

Maintaining these principles results in behavioral regularity that promotes physiological and psychological health (Nagarathna et al., 2019). Non-violence entails empathy toward oneself and living beings, promoting hope and resilience in adversity, and precluding violent language or acts. Truthfulness minimizes worry and fear; consciously avoiding falsehood prevents frustrations and hopelessness. Non-stealing facilitates diligence through self-sufficiency; renouncing covetousness diminishes dissatisfaction. Sexual purity safeguards family harmony and fulfillment of life stages; relinquishing unhealthy sexual impulses reduces fear, guilt, and anxiety that impair motivation and joy (Chattopadhyay et al., 2020).

Dispassion may be sustained through contentment and simplicity. Graciousness, dignity, and moderation instill self-worth incongruent with worldliness. Stable satisfaction nullifies cravings that disrupt tranquillity and mindfulness. Objectively monitoring thoughts and emotions; clarifying aspirations and accomplishments and discharging negative tendencies through positive action enhance equanimity across undesirable situations. Healthy income generates balanced leisure and accomplishment that enrich life without undue preoccupation. Aspiration to Know, Acquire, and Serve, founded on a persistent desire for clarity and integrity, cultivates fulfilment via engaging and harmonious relationships and stimulates inner inquiry for continued re-examination of priorities and conditioning (Deshmukh et al., 2016).

3.2. Asanas, Pranayama, Dhyana: Physiological and Psychological Pathways

Based on a foundational scriptural framework—Yogadarśa, Yoga-sūtra, Bhagavad-gītā—the inductive approach examines lifestyle diseases (e.g. diabetes) afflicting Indians. During the last few decades, the dominant cause of death has shifted from under-nutrition-related diseases to lifestyle-related diseases—obesity, Type-2 Diabetes, Hypertension, and so on. Yogic Lifestyle and Balanced Nutrition are proposed as preventive measures. Evidently, asanas, pranayama, and dhyana constitute the physiological and psychological mechanism of Yogic Lifestyle. Multiple studies indicate their

positive effect on cardiovascular conditions, obesity, metabolic syndrome, neuro-endocrine disorders, Type-2 Diabetes, and Hypertension (Doddoli et al., 2016).

3.3. Behavioral and Social Determinants

Health outcomes, the consequences of disease, affect individuals and impact communities socially and economically (Kumar et al., 2022). In India, lifestyle diseases account for about 61% of all deaths with 2,025 million deaths, where high income individuals in urban areas are the most affected. In rural, urban and semi urban areas, Diabetes-Mellitus accounted for more than 77% of NCD deaths. In the Indian context, societal determinants of health include poverty, lack of employment, lack of access to safe drinking water, lack of access to nutrition, lack of access to energy for domestic use, absence of facilities for health care, and ineffective operation of health care services (Sharma et al., 2023). Such determinants impact education, access to information, and access to physical activity, allowing control over lifestyle diseases.

4. Balanced Nutrition in the Indian milieu: Diet Patterns and Nutritional Transition

Traditional Indian diets highlight whole grains, legumes, vegetables, fruits, and spices, with substantial regional variability. South Indian diets favour rice, lentils, and oilseeds; other regions prefer wheat and coarse grains. Indian diets are reportedly associated with favourable cardiometabolic profiles compared to Western patterns. Modern dietary trends emphasise increased sugar-sweetened beverage and animal-source food consumption, mirroring Western patterns, and are linked to higher energy intake. These changes occur alongside rapid urbanisation, economic growth, and a nutrition transition. India possesses the world's largest diabetic population and faces alarming levels of obesity and the largest burden of diabetes, hypertension, and other chronic diseases (R Daniel et al., 2011).

Modern Indians frequently consume fast foods high in refined carbohydrates, added sugars, saturated fats, and trans fatty acids; ready-to-eat snacks; processed meat products; high-calorie savoury snacks; and soft drinks sweetened with sugar and/or caffeine, all associated with elevated risks of chronic diseases (M. Pandey et al., 2013). The average intake of fruits is one third to one fifth of the recommended levels, while consumption of vegetables remains below ideal levels. These regular dietary patterns deviate from traditional practices that pre-date British rule and the arrival of processed or packaged foods and unhealthy industrially prepared snacks. The Indian lifestyle is undergoing rapid changes, with an emerging trend towards high-calorie, high-fat, low-fibre foods.

An integrative dietary pattern that complements a yogic lifestyle embraces whole, unprocessed, natural foods consumed in their natural states, with minimal processing, preparation, and cooking. Taking a locally and regionally relevant approach, this model incorporates a wide variety of whole foods—predominantly ayurvedic whole grains, pulses, greens and vegetables, health-promoting spices, and fresh fruits—without hindering mobility, flexibility, and sustainability.

4.1. Traditional Indian Diets and Health Outcomes

Dietary habits have a profound impact on metabolic diseases such as diabetes, hypertension, and cardiovascular diseases and are associated with life expectancy and quality of life. India's secular and perennial traditions and practices of dietetics have evolved over time and are rooted in religions, philosophies, sciences, languages, and varieties of literature. India has a wide variety of regional dietary customs, including vegetarian and non-vegetarian food that contribute to the evolution of Ayurveda (M. Pandey et al., 2013). The practice of a classical Indian diet with food items as per Ayurveda can help to restore metabolic balance, overcome common health issues, live a healthy life, and enhance the overall quality of life. Well-balanced Indian diet patterns significantly lower cardio-metabolic risk across regions of India as well as life-threatening diseases (R Daniel et al., 2011). The national food security bill initiated by the government of India and the efforts made by an individual or sophisticated research organization such as F.I.R.E. and other stakeholders by providing low cost of food items such as cereals, pulses, vegetables, fruits, and food supplements very much encouraged by unhealthy food habits are implemented towards healthy and balanced diet habits.

4.2. Modern Diets, Nutritional Deficiencies, and Chronic Disease risk

Dietary habits have changed drastically in India over the last 50 years. These changes are associated with a rise in chronic diseases coupled with micronutrient deficiencies such as iron, zinc, iodine, vitamin–A, and folate. Studies on the effects of dietary changes on health are limited and have not established a clear correlation between diet and prevalent chronic diseases (M. Pandey et al., 2013). Moreover, the interplay between dietary patterns and micronutrient deficiencies in India, a country with extreme socio-economic inequalities, is poorly understood (R Daniel et al., 2011). The emerging threat posed by lifestyle diseases and micronutrient deficiencies, many of which are preventable, is becoming increasingly important for public health experts in India.

Dietary habits play a significant role in the chronic disease epidemic; therefore, evidence concerning the state of chronic diseases in the nation, the nature of rapid dietary change, and the nutritional deficiencies accompanying this transition, alongside the consequences and public health implications of the situation are detailed.

4.3. Integrative Dietary Models: Yoga-informed Nutrition

Indians today consume increasingly homogenized and complex diets that deviate sharply from traditional staples; this transition contributes to rising rates of noncommunicable disease. To counteract these trends, integrative models of dietary choice aligned with yogic principles provide practical guidance for improved health and well-being. The broad characteristics of such models offer considerable flexibility to accommodate diverse regional preferences among India's multiple culinary traditions, which combine locally available ingredients to yield innumerable everyday variations (Nagarathna et al., 2019).

Traditional Indian diets centred on whole, minimally processed items like cereals, legumes, vegetables, and dairy correlate to healthy weight, favourable metabolic profiles, and reduced chronic-disease risk. Over the past four decades, however, development, urbanization, and globalization have remapped these foodscapes and shifted consumption toward ultra-processed snack foods, sugar-sweetened beverages, edible oils, and other industrially manufactured products. The balance of macronutrients has also changed, leading to fortification with bioactive compounds. The consequent nutrition transition disrupts established food habits while yielding micronutrient deficiencies; the net result is greater vulnerability to cardiometabolic disease (Chattopadhyay et al., 2020).

5. Evidence Synthesis: Yogic Lifestyle, Nutrition, and Lifestyle Diseases

Lifestyle diseases represent a global epidemic affecting industrialized countries and developing nations alike. They are defined as diseases that thrive when certain aspects of life are out of balance, and thus a yogic perspective provides clear insight into how to prevent them. While lifestyle diseases are by no means limited to any single country, they provide critical evidence of their increasing prevalence within India. In just over 40 years, the percentage of cardiometabolic death rates in India has shot up by 329 per cent, with the country poised to contend to become the diabetes capital of the world. Such alarming trends have prompted the Government to engage in preventive measures to curtail the associated risks.

Yogic lifestyle is a collective term that refers to both the wholesome principles of daily living known as Yama and Niyama, and the additional practices of asana (yoga postures), pranayama (mindful breath control), and dhyana (meditative awareness). Each of these components is explained in detail along with their anticipated mechanisms and underlying connections, systematically providing evidence for the preventive potential of integrated yogic lifestyle and nutrition against lifestyle diseases, as well as paving the way for further research (Nagarathna et al., 2019).

5.1. Cardiometabolic Conditions

Correlational studies and intervention trials confer a modest but consistent link between yogic lifestyle, balanced nutrition, and reduced risk of cardiometabolic conditions among Indian populations.

Epidemiological evidence indicates that these diseases account for nearly one-third of the burden of lifestyle diseases in India, exerting an increasing toll on health and longevity. Cardiovascular diseases and diabetes, the principal components of the non-communicable disease epidemic, remain alarmingly prevalent across diverse demographic and socio-economic sections. Several randomized controlled trials conducted in India have investigated the effects of yoga combined with dietary modifications on various health dimensions, including anthropometric, biochemical, and psychosocial parameters relevant to cardiometabolic risk. They indicate favourable changes and generally positive participant feedback, despite common challenges in implementing sustained lifestyle modification.

A high prevalence of metabolic syndrome, prediabetes, and obesity among 30- to 50-year-olds has also been documented in a rural community in the southern state of Karnataka. Pilot research exploring the integration of yoga, dietary counselling, and other health promotion components for adults exhibiting these cardiorenal risks has yielded preliminary indications of behaviour change in both urban and rural settings. In one district, a nationwide large-scale implementation study aimed at preventing type 2 diabetes through a locally adapted lifestyle intervention is ongoing. Collectively, these observations affirm a plausible link between yogic lifestyle, dietary balance, and reduced cardiometabolic risk and underline the need for systematic investigation in contemporary Indian populations (Sarvottam & Kumar Yadav, 2014).

5.2. Metabolic Syndrome and Obesity

Obesity and metabolic syndrome have become increasingly prevalent in India, especially in urban areas (Sarvottam & Kumar Yadav, 2014) , which pose important public health challenges. A yoga-based lifestyle intervention among overweight and obese subjects living in a semiurban area of North India indicated beneficial effects on indices of central obesity, standard metabolic risk factors, and inflammatory biomarkers. The impact of a yoga-based lifestyle intervention on the health profile of individuals with metabolic syndrome and its components—specifically, body mass index, waist circumference, blood pressure, triglycerides, high-density lipoprotein cholesterol, fasting blood glucose, and a composite diabetic risk score—was also assessed (Verma et al., 2018). Dietary changes, with a reduction in processed food intake and a sufficient supply of fruits and vegetables, improved the overall nutritional profile and were also associated with the number of components of metabolic syndrome; interventions on diet and physical activity were, therefore, recommended.

Since metabolic syndrome is closely linked to behavioral and psychological factors, yoga interventions aiming to improve diet and physical activity alongside behavioral and psychological status are likely to positively influence its determinants. Studies on yoga and metabolic syndrome are still emerging, strengthening the case for further research on the links between yoga, diet, and body weight on one side and metabolic syndrome on the other. Policy and public health engagement in India address the need for further research on these topics.

5.3. Neuroendocrine and Mental Health Correlates

Regular yoga practice beneficially modulates the neuroendocrine system, impacting mental health and cognition (Kaur et al., 2021). For example, neurochemical modulation promotes alterations in low-serotonin-related conditions like despondency, frustration, and low energy. Increased GABA levels correlate with reduced anxiety. An enhanced dopamine system underlies improved focus, creativity, and memory. Increased oxytocin levels indicate enhanced bonding with self, family, and environment, which is crucial for self-awareness and self-realization (S Khemka et al., 2011).

The chronic stress prevalent in today's society leads to continual HPA-axis stimulation and consequent psychological disorders, while optimal mental health relies on a well-balanced HPA axis (Deole et al., 2012). Chronic stress results in a higher rate of cortisol release, and chronic high levels of cortisol lead to depression and anxiety. Yoga moderates HPA-axis disturbance caused by stress by encouraging the expression of specific neuro-transmittors that help regulate daily mood. Yoga practice not only strengthens neuron connection but also aids in neuron regeneration in the hippocampus, amygdala, thalamus, and prefrontal cortex, which are highly affected by stress.

Yoga practice has also been shown to strengthen neuronal circuitry in the prefrontal cortex, thalamus, and visual cortex, and improve visuo-spatial ability. The limbic region (amygdala) is the locus of neuron regeneration and governs emotion recognition and regulation. Furthermore, yoga positively influences attention-executive function and enhances inhibition.

5.4. Type 2 Diabetes and Hypertension: Intervention Studies from Indian Populations

Three intervention studies in Indian populations evaluated the effects of yoga, yoga-nutrition combinations, and other lifestyle modifications on type 2 diabetes and hypertension. The first study, a pilot randomized controlled trial conducted in Bangalore, tested a yoga program on 41 participants with elevated fasting blood glucose levels (A McDermott et al., 2014). The second, an ongoing multi-centre study, developed a yoga program for type 2 diabetes prevention among individuals with high risk factors, including physical inactivity and unhealthy dietary habits; feasibility analysis is underway (Chattopadhyay et al., 2020). A third study in Mumbai investigated a 6-month adaptive yoga-nutrition intervention for individuals with multiple lifestyle-related risk factors and assessed its impact on obesity, blood pressure, glucose, and cholesterol metabolism, with positive outcomes.

In the Bangalore trial, 15 participants were assigned to a yoga group and 26 to a walking group. Individuals in the yoga group practised for about 8 hours per week on average, while those in the walking group averaged 4.5 hours. Both groups reported attendance of around 20 sessions per month. Statistical analysis using an intent-to-treat approach indicated that yoga significantly reduced body weight (–1.25 kg), waist circumference (–1.36 cm), and systolic blood pressure (–7.86 mmHg) relative to the walking control. Additional improvements were observed in cholesterol levels and psychological variables.

6. Policy, Public Health, and Implementation in India

India faces a burgeoning epidemic of chronic, non-communicable diseases often referred to as lifestyle diseases, namely non-insulin dependent diabetes mellitus (Type 2 diabetes), cardiovascular disorders (CVD), metabolic syndrome, obesity, and neuro-endocrine disorders including psychiatric conditions. Behavioral lifestyle interventions including yogic lifestyle, balanced nutrition, weight management, physical activity, and stress management can be effective, with the Indian yogic tradition offering important preventive and curative tools. Yoga is a preventative, holistic system that nurtures physical, mental, and social well-being and enjoyment. Yogic lifestyle incorporates the ethical principles of yama and niyama; asanas for physical fitness, discipline, and well-being; and pranayama and dhyana for managing stress and promoting emotional and mental stability. Balanced nutrition focuses on whole foods, seasonal produce, the six tastes, and dining in a relaxed environment. Both approaches can potentially alleviate pre-diabetes, Type 2 diabetes, metabolic syndrome, dyslipidemia, hypertension, anxiety, depression, and neuroendocrine imbalances, thereby contributing to improved quality of life (Kumar et al., 2022).

6.1. Educational and Community-Based Interventions

Preventing lifestyle diseases is critically important, especially in the context of the Indian population. The challenge is amplified due to a lack of infrastructure and resources in community-based preventive health interventions (Nagarathna et al., 2019). Through research conducted and analysis of government data, it is found that community health workers, yoga teachers, or school teachers who have undergone short training programs in yoga and nutrition can conduct effective educational and community-based interventions “to sustainable prevent lifestyle diseases”. The target group to be addressed can be chronic malnutrition, child obesity, adolescent obesity, hypertension, pre-diabetic condition, diabetes, cardiac problems and depression.

6.2. Health Systems Integration and Workforce Training

Integrating yoga into health systems involves multiple modalities, notably incorporation into the training curricula of health professionals and auxiliary personnel. The feasibility of this integration has been explored within Indian medical, nursing, public health, and Ayurvedic

institutions (Kumar et al., 2012). The National Institute of Mental Health and Neurosciences (NIMHANS), a premier mental and neurological health centre in India, has begun to develop both undergraduate and postgraduate curricula in yoga and integrates yoga with wider lifestyle considerations into preventive and therapeutic approaches to non-communicable disorders (Bhargav et al., 2022). In addition to workforce education, other package components are delivery of yoga and nutrition services and development of supplementary resources. Evaluating health-systems integration efforts remains essential, given the need to address barriers for effective implementation.

6.3. Cultural Adaptation, Accessibility, and Equity

Developmental, linguistic, regional, rural–urban, and spatial disparities are notable across the vast multicultural and multilingual landscape of India (Leah Fendt-Newlin et al., 2020). A recent culturally appropriate programme aimed at diabetes prevention achieved high retention even in low-education populations (Nagarathna et al., 2019). Implementation of culturally relevant yoga-nutrition interventions has therefore the potential to enhance population engagement with, and access to, physical and mental health solutions. Evidence suggests that scaling up culturally congruent interventions in mental health, nutrition, and physical exercise is pertinent in India; initiating culturally adapted yoga-nutrition lifestyles at the primary prevention stage is relevant also. Cultural appropriateness further amplifies linguistic, regional, rural, and socioeconomic accessibility. A population-based survey estimated online access to yoga-training materials approaching 100% and practice among approximately 15% of the Indian population.

7. Future Research

Future research can enhance understanding of the role of yogas and nutrition in preventing lifestyle diseases by addressing four interrelated methodological aspects: study design and outcome measures; implementation science and scalability; and interdisciplinary approaches.

Most studies on yogas and lifestyle diseases employ nonrandomized designs, multicomponent interventions, self-reported outcomes, and inadequate process evaluation. Randomized controlled trials are needed to minimize confounding and support causal inference; large cohort studies can provide diverse data on natural habits and long-term outcomes; biobanks can clarify biological and environmental determinants; and patient-centered or equity oriented measures can assess relevance to diverse populations. Biomarkers of physiological, psychological, behavioral, environmental, and social variables can add mechanistic insights. More research also is needed on the operationalization and measurement of yogas and nutrition in both the general population and specific settings.

In addition, implementation science frameworks and cost-effectiveness analyses can evaluate the factors influencing the adoption, fidelity, adaptation, reach, and sustainability of yogas and nutrition interventions; the potential impact on health and well-being; and the site-specific attributes that affect their scalability by establishments and systems. Finally, interdisciplinary collaboration can strengthen the science of yogas and nutrition by integrating perspectives and skills from yoga research, public health, nutrition, sociology, economics, and other relevant domains (Nagarathna et al., 2019).

7.1. Study Design and Outcome Measures

The Indian context is characterized by multiple lifestyle diseases; the health-related quality of life (HRQoL) of the Indian population is adversely affected due to the increased prevalence of lifestyle diseases. The proposed model for healthy living based on Yogic Lifestyle (Yogic practices and Balanced Nutrition) is hypothesized to improve the HRQoL of the Indian population by reducing the incidence of lifestyle diseases. Multiple studies are currently being planned to verify the specific segments of the proposed model and to document the interaction between Yogic Lifestyle and Balanced Nutrition on lifestyle diseases.

Interventions in both school and college-based education have included instruction in Asana, Pranayama, Dhyana Yoga, Yama, Niyama, Balanced Diet, session recordings, stepwise integration of

practice into daily life, and the incorporation of additional life-skills training. Investigations are ongoing to determine the efficacy of different components in the Indian context. Additional studies in a similar style have been initiated to assess the effect of freely-available Bhaskar Yoga Videos over Universal Whatsapp Communication on near-daily or daily-repeat visual only practice of 28 seconds per video on the well-being among Indian College Students and School Going Children and to document the factors associated with a successful, continued or discontinued practice.

A nationwide multicentric trial, the Niyantrita Madhumeha Bharata Abhiyaan 2017, has leveraged these insights to develop the удалите 3 intervention in 16 different languages, the largest yoga intervention for T2DM globally. The 16-hour yoga curriculum covering the 3 segments is delivered by the same personnel over a 21-day period on-line had also been shown to improve T2DM HRQoL among College Students, reported as the Prashikshan College Programme. India accounts for 90% of globally reported incidence in Kumar's 2000 epidemiological review. Further epidemiological and clinical studies have confirmed the analysis.

A large multicentric study in progress on the effect of Plant-Based Traditional South Indian Diet on Metabolic Health in Indian Cohorts addresses the role of Nutrition. A pilot study continues in three temples investigating the associated benefits of Temple Visits and the practice of Yoga at Home. Future studies planned on national based cult celebrations will determine their national multiple inter-generational, inter-gender, and societal/communal health protection effects and influence on the National Health Index for India (Nagarathna et al., 2019).

7.2. Implementation Science and Scalability

Research on the implementation of yoga and nutrition to prevent non-communicable diseases in India has identified various framework theories and constructs shaping these preventive approaches. Effective lifestyle interventions target high-risk individuals (Nagarathna et al., 2019). Integrating preventative yogic lifestyle and basket nutrition into educational and civic initiatives enhances adoption of these interventions. Implementation science focuses on intervention adaptation and scaling across diverse contexts while maintaining core elements. Priority constructs include adoption by target audiences, implementation fidelity to the original approach, and cost-effectiveness based on program utilization (Beth Weber et al., 2023). Additional studies may better characterize the scenarios most suitable for implementation, the decision-making process involved, and the economic and social cost-benefit evaluations required to justify allocation of scarce public resources.

Research supports the beneficial effects of premium lifestyle interventions for six sectors in diverse contexts, yet the need to adapt and upscale is often overlooked. Although the Ayush ministry officially recognizes both yoga and nutrition, such programming is generally not multidisciplinary or evidence-based when implemented by government bodies without external research support. Guidance grounded in rigorous investigation and curated from reputable authors remains indispensable to establish a sustainable national policy, public health strategy, and methodological framework for large-scale implementation. Leveraging the historical breadth of yoga science, human nutrition, and lifestyle medicine in India may generate further interest and investment in these two high-potential areas. Priorities also include generating a national dataset on the evolving epidemiological picture of lifestyle diseases and their socio-economic consequences, and streamlining national and state policy frameworks for accessible, equitable multidisciplinary interventions across both the public and private sectors.

8. Conclusion

Fitness and health should not be considered mere fads. Diet, physical fitness and lifestyle directly impact fitness levels. Sustained adherence to an effective yogic lifestyle and balanced nutrition can aid in developing healthy habits that help strengthen the immunity system and prevent lifestyle diseases. In the context of increasing pollution, changing food habits, rapid urbanisation and associated lifestyle changes in modern society, many individuals are experiencing a significant decline in their physical and mental fitness. A yogic lifestyle combined with appropriate balanced nutrition can not only promote optimal performance but also delay the onset of lifestyle diseases. With changing

times, increasing reliance on bioinformatics and biotechnology, fitness parameters that are beyond the scope of an individual's understanding should be entrusted to certified experts. However, practitioners can still consciously adhere to guiding yamas and niyamas along with animal and beautiful food principles for balanced nutrition. The practice of yoga includes asanas, pranayama, mudras, bandhans, dhyan, samadhi, and more. During the Covid-19 pandemic, the increasing threat of provocative duties led to elevated anxiety levels, necessitating pointers to maintain fitness during lockdown. Most guided cellphone yoga classes tend to be global and not region specific. Even standard infrastructure like a yoga mat is not omnipresent. Crude techniques were developed based on what was available on cellphone apps, knowledge of local areas, and the experiences of established practitioners in the region. Optimal times and conditions were accordingly selected for practice to maintain and enhance fitness parameters of the body given the local situation.

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