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REVIEW ARTICLE

The Impact of Isha Yoga Practices on Mental and Physical Well-being: *A Narrative Synthesis of Current Literature.*

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ABSTRACT

Introduction:*Isha Yoga* is a comprehensive approach that integrates yogic practices such as *Isha Kriya, Shambhavi Mahamudra, Upa Yoga*, and the *Samyama* program. These practices have garnered attention for their potential health benefits including stress reduction, emotional equilibrium, and enhanced physical well-being. This review aimed to evaluate the impact of *Isha* Yoga on physical and mental health outcomes by analysing evidence from randomised controlled trials (RCTs), observational studies, and survey-based research.

Methods:A comprehensive literature search was conducted across multiple academic databases, including studies published between 1990 and 2024. The inclusion criteria were Studies investigating the effects of *Isha Yoga* on mental health, physical health, and quality of life were included. Eligible studies were categorised as RCTs, observational studies, or survey-based studies. Quality assessments were performed using established tools, including the Cochrane Risk of Bias Tool for RCTs, the Newcastle-Ottawa Scale (NOS) for observational studies, and CHERRIES for survey studies.

Results: Seventeen studies were included in the review, comprising three RCTs, 11 observational studies, and three surveys. Evidence from high-quality RCTs suggests that *Isha Yoga* practices significantly reduce stress, anxiety, and depression, while enhancing mental well-being. Observational studies and surveys have reported improvements in cardiovascular health, metabolic markers, and the overall quality of life. However, the strength of the evidence varies: the most robust findings relate to mental health outcomes, whereas physical health benefits rely on moderate-quality observational evidence.

Conclusion: *Isha Yoga* demonstrates promising benefits for both mental and physical health, particularly in reducing stress and anxiety, and improving emotional well-being. However, further high-quality research is necessary to corroborate these effects and investigate underlying mechanisms, such as autonomic regulation and neuroplasticity. Future studies should explore the long-term impacts of these practices and their potential role in holistic health strategies to promote sustainable well-being.

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1. INTRODUCTION

In recent years, there has been an increasing interest in the potential health benefits of yoga and other mind-body practices as complementary approaches to conventional medicine. ***Yoga***, an ancient scientific practice originating in India over 5,000 years ago, has gained attention for its potential to mitigate treatment-related symptoms and improve health outcomes across various conditions, including cancer, neurological diseases, cardiovascular and pulmonary disorders, and chronic pain.[1-7] Rather than a religion or belief system, yoga is a scientific discipline incorporating diverse practices such as physical postures, breathing exercises, meditation, and ethical principles, collectively fostering a harmonious balance between the body, mind, and spirit.[8] Yoga is recognised for enhancing bodily systems, improving posture, regulating sleep patterns, and reducing stress and anxiety.[9-14] Among the many forms of yoga, ***Isha Yoga*** has emerged as a distinct practice that integrates posture, pranayama, and meditation techniques to promote holistic well-being. Developed by Sadhguru Jaggi Vasudev, ***Isha Yoga*** emphasises a comprehensive approach encompassing health's physical, mental, and spiritual dimensions.[15,16]

The practices within ***Isha Yoga***, including ***Isha Kriya, Shambhavi Mahamudra, Upa Yoga***, and advanced programmes such as ***Samyama***, have been widely adopted by individuals globally, with a notable focus on stress reduction, emotional equilibrium, and overall quality of life. Each practice offers unique methodologies and foci for achieving specific health outcomes. For instance, ***Isha Kriya*** is a guided meditation program that involves focused breathing, thought awareness, and chanting to enhance mindfulness, emotional balance, and mental clarity. ***Shambhavi Mahamudra***, a 21-minute practice, combines meditation, controlled breathing, and visualisation techniques to promote inner peace and emotional stability. ***Upa Yoga*** consists of preparatory physical postures that improve flexibility, strength, and physical well-being by activating joints, muscles, and the energy system. The ***Samyama*** Programme, an advanced meditation retreat involving prolonged silence, deep meditative practices, and a vegetarian diet, emphasises inner exploration and profound transformation.The increasing prevalence of chronic health conditions such as cardiovascular diseases, diabetes, and mental health disorders underscores the need for integrative and accessible health interventions. With its comprehensive array of practices, *Isha Yoga* is a viable option owing to its adaptability, cost-effectiveness, and minimal risk profile. Preliminary research on *Isha* Yoga suggests potential beneficial effects on various aspects of health, including mental well-being, metabolism, cardiovascular function, and overall wellness. These findings are consistent with broader evidence supporting the efficacy of mind-body practices in promoting health and preventing disease. However, the precise mechanisms through which *Isha Yoga* confers these benefits remain unclear. Potential pathways may involve the modulation of the autonomic nervous system, enhancement of neuroplasticity, reduction of systemic inflammation, and improvement of metabolic function. Elucidating these mechanisms will be crucial for validating the health benefits of *Isha Yoga* and integrating it into clinical and public health settings.

This narrative review aimed to synthesise the existing evidence on the health benefits of *Isha Yoga* practices, drawing from randomised controlled trials (RCTs), observational studies, and survey-based research. By examining the outcomes associated with different *Isha Yoga* practices, this review provides a comprehensive overview of their impact on physical and mental health and elucidates the mechanisms by which these benefits may be achieved. Furthermore, this review identifies gaps in the current literature and proposes directions for future research to better understand yoga's role in promoting holistic health and well-being.

2. METHODS

A comprehensive literature review was conducted to identify research investigating the health benefits of *Isha Yoga*. The search encompassed electronic databases, such as PubMed, Scopus, Cochrane, and Web of Science, to retrieve peer-reviewed articles published until 2024. Various combinations of keywords, including "*Isha Yoga*", "*Isha Kriya*", "*Shambhavi Mahamudra*", "*Upa Yoga*", "*Samyama*", "health outcomes", "mental health", "physical health", "quality of life", "randomized controlled trial", "observational study", and "survey" were employed.

Study Selection: The review included studies that examined the effects of *Isha Yoga* practices on various health outcomes such as physical health, mental health, and quality of life. Eligible studies were randomised controlled trials (RCTs), observational studies, or cross-sectional surveys that provided quantitative data on relevant health indicators including stress, anxiety, depression, cardiovascular health, and metabolic health. Only articles published in peer-reviewed English journals were considered.

Studies were excluded if they focused on other forms of yoga unrelated to *Isha Yoga* practices, were non-peer-reviewed publications (e.g. editorials, commentaries, or conference abstracts), or lacked sufficient quantitative data or outcome measures on health benefits. We followed the PRISMA guidelines to maintain transparency, rigor, and reproducibility throughout the review process.[17]

Data Extraction and Synthesis: Two reviewers independently extracted the data to ensure accuracy and completeness. The following information was extracted from each included study: authors, year of publication, study design, sample size, population characteristics, type of *Isha Yoga* practice(s)

examined, intervention duration, control conditions (if applicable), outcome measures, and main findings. The extracted data were synthesised in a narrative format, categorising studies based on the type of health outcome assessed (e.g. mental health, physical health, and quality of life) and the specific *Isha Yoga* practice(s) evaluated. Results from randomised controlled trials (RCTs) were prioritised when assessing the strength of the evidence. Concurrently, observational studies and surveys have been utilised to provide additional insights and explore broader patterns of benefits among diverse populations.

Quality Assessment: The methodological quality of the included studies was assessed using standardised tools. The Cochrane Risk of Bias Tool was used for randomised controlled trials (RCTs), while observational studies were evaluated using the Newcastle-Ottawa Scale. Survey-based studies were assessed using the CHERRIES survey checklist. [18-20]

Data Analysis: Due to the heterogeneity in study designs, populations, interventions, and outcomes, a narrative synthesis approach was adopted. The findings were organised based on health outcomes, focusing on the effects of various *Isha Yoga* practices. The potential mechanisms underlying these effects were also examined using available evidence.

3. RESULTS

The search process identified 587 records from all databases examined, as illustrated in Figure 1. After removing 57 duplicate records, 530 relevant articles were retained for the initial screening based on titles and abstracts. Of these, 505 records were excluded because they did not meet the inclusion criteria, leaving 25 reports for a comprehensive full-text review. After a thorough assessment, 17 studies were selected and included in the final review.[21-37] These studies comprised three randomized controlled trials, 11 observational studies, and three survey-based studies. This study investigates various *Isha Yoga* practices, including *Isha Kriya, Shambhavi Mahamudra, Upa Yoga*, and the *Samyama* program, focusing on evaluating their impact on various health outcomes, including mental and physical health, as well as overall quality of life. This report presents an overview of key findings across various health outcome categories. Detailed statistical outcomes and specific study characteristics are provided in the comprehensive table, which delineates the design, population, outcomes, and critical findings of each study [Table 1].

Mental Health Outcomes: Multiple studies have demonstrated that Isha Yoga practices, particularly *Isha Kriya* and *Upa* Yoga, significantly reduce stress, anxiety, and depressive symptoms across diverse populations. One randomized controlled trial (RCT) investigating the effects of *Isha Kriya* among hematopoietic cell transplantation (HCT) recipients revealed a transient improvement in bone marrow transplantation-specific quality of life concerns at day +30 post-HCT (p = 0.03; Cohen's d = 0.5), although no significant changes were observed in the overall quality of life or global health scores. [21]

Another RCT involving college students practicing *Isha Upa Yoga* reported significant reductions in stress (p = 0.009, d = 0.27) and anxiety (p < 0.001), as well as improvements in overall well-being (p = 0.002, d = 0.32) following a 4-week intervention.[22]

< 0.001), as well as improvements in overall well-being (p = 0.002, d = 0.32) following a 4-week intervention [22].

An observational study evaluating online guided meditation (Isha Kriya) revealed substantial improvements in self-reported symptoms of anxiety and depression within two weeks of practice, with these benefits sustained up to 6 weeks (p < 0.01, d = 1.31 for anxiety; p < 0.01, d = 0.9 for depression).[23]

< 0.01, d = 1.31 for anxiety; p < 0.01, d = 0.9 for depression) [23].

An observational study at a retreat evaluated the effects of the ***Shambhavi Mahamudra Kriya*** on perceived stress and general well-being in a cohort of healthy individuals. The study found that participants reported a significant decrease in perceived stress (mean change = -4.05, SD = 6.529, t (141) = -7.393, P < .001) and an increase in general well-being (mean change = 2.39, SD = 5.128, t (141) = 5.564, P < .001). [24] A survey-based study conducted during the COVID-19 pandemic found that experienced *< .001) and an increase in overall well-being (mean change = 2.39, SD = 5.128, t(141) = 5.564, P < .001).^[24^] A survey-based study conducted during the COVID-19 pandemic indicated that experienced* ***Isha Yoga*** practitioners exhibited significantly lower levels of perceived stress (p < 0.0001) and higher levels of well-being and joy (p < 0.0001) compared to non-practitioners. [25] A prospective cohort study on the Inner Engineering Completion Online (IECO) program reported significant reductions in perceived stress (p = 0.0023) and improvements in mindfulness and sleep quality among participants over a six-week period.[26]

< 0.0001) as well as higher levels of well-being and joy (p < 0.0001) when compared to non-practitioners.^[25^] Furthermore, a prospective cohort study evaluating the Inner Engineering Completion Online (IECO) program demonstrated significant reductions in perceived stress (p = 0.0023) and improvements in both mindfulness and sleep quality among participants over a six-week duration.^[26^]

Physical Health Outcomes: A study on the effects of ***Shambhavi Mahamudra*** reported improved heart rate variability (HRV) parameters, indicating balanced autonomic function and increased parasympathetic activity among regular practitioners compared to non-practitioners.[27]

A non-randomized trial investigating the ***Samyama*** program (an advanced meditation retreat combined with a vegan diet) observed significant reductions in lipid profiles, including lower levels of cholesterol esters, acylcarnitine,

and acylglycines ($p < 0.001$) post-intervention, which are associated with reduced cardiovascular risk.[28]
< 0.001) following the intervention, which are correlated with a reduced risk of cardiovascular disease.^[28^]
Another similar study also found improvements in inflammatory markers, such as C-reactive protein (CRP), and reduced HbA1c levels, suggesting potential benefits for individuals with metabolic syndrome or diabetes.[29]
A study on the impact of the ***Samyama*** program on gut microbiome diversity demonstrated significant alterations in the microbiota composition among participants. The study reported increased levels of beneficial gut bacteria and short-chain fatty acids, which support gut health and potentially influence mental well-being through the gut-brain axis.[30]

3.1 Quality of Life: An RCT conducted on HCT recipients indicated that the overall quality of life scores did not significantly differ between the intervention and control groups. However, there was a transient improvement in bone marrow transplantation-specific concerns in the ***Isha Kriya*** group at day +30 post-HCT.[21] Observational studies and surveys demonstrated that regular practice of ***Isha Yoga*** was associated with elevated levels of emotional equilibrium, cognitive clarity, and general well-being, particularly during heightened stress such as the COVID-19 pandemic.[25]

3.2 Summary of Results: Evidence suggests that Isha Yoga practices may confer substantial benefits for mental health, including reductions in stress, anxiety, and depression, as well as improvements in well-being and resilience. Physical health benefits and an enhanced quality of life for specific patient populations, notably cardiovascular and metabolic health, were also observed. However, the robustness and consistency of these findings vary across studies and additional research is necessary to elucidate the long-term effects and underlying mechanisms of these practices.

4. DISCUSSION

This review synthesises existing evidence on the health benefits of *Isha Yoga* practices, encompassing a range of outcomes related to mental health, physical health, and overall quality of life. The findings indicate that *Isha Yoga* practices offer significant benefits across multiple health domains, such as *Isha Kriya, Shambhavi Mahamudra, Upa Yoga,* and advanced programs like *Samyama.* However, the strength and quality of this evidence vary, reflecting differences in the study design, population, and methodological rigor.
4.1 Mental Health Benefits: The Evidence strongly supports the efficacy of *Isha Yoga* practices in enhancing mental health, particularly in reducing stress, anxiety, and depression. Multiple RCTs and observational studies demonstrate significant improvements in these outcomes among diverse populations, including college students, healthcare workers, and individuals during the COVID-19 pandemic.[22-26, 30-34] For instance, studies on *Isha Kriya* and *Upa Yoga* reported rapid reductions in anxiety and depression symptoms, with effects sustained over several weeks of practice.[22,23] These findings align with broader research on mind-body practices, suggesting that *Isha yoga* may promote psychological well-being through enhanced mindfulness, emotional regulation, and stress resilience.

4.3 Physical Health Benefits: Isha Yoga practices also appeared to positively influence physical health, particularly cardiovascular and metabolic outcomes. Observational studies indicate improvements in heart rate variability (HRV), which reflects enhanced autonomic regulation, among regular practitioners of _Isha Yoga.[_36] Additionally, the *Samyama* program, which integrates meditation with a vegan diet, was associated with favourable changes in lipid profiles, reduced inflammatory markers, and improved glycaemic control.[29] These findings suggest that *Isha Yoga* could be a beneficial adjunctive approach for managing conditions such as hypertension, diabetes, and dyslipidaemia. However, evidence from non-randomised trials and observational studies warrants cautious interpretation, as these studies are more susceptible to bias.

4.4 Quality of Life Improvements: Several studies have highlighted the potential of *Isha Yoga* practices to improve quality of life, particularly in populations facing significant health challenges, such as cancer patients undergoing treatment. For example, an RCT involving hematopoietic cell transplantation recipients demonstrated transient improvements in bone marrow transplantation-specific concerns among those practicing *Isha Kriya*.[21] While the overall effects on global quality of life were modest, these findings underscore the role of *Isha Yoga* as a supportive intervention that may complement conventional medical care.

*4.5 Quality and Strength of Evidence***:** Overall, the methodological quality of the studies exhibited variability [Table 2], and the three RCTs demonstrated varying levels of bias. One study.[21] exhibited a low risk of bias across most domains but was limited by the small sample size and short follow-up duration. Another presented a high risk of performance and reporting bias due to a lack of blinding and selective outcome reporting.[22] The third was rated moderate due to concerns over blinding and outcome assessment.[34]
The 11 observational studies generally scored moderate to high on the Newcastle-Ottawa Scale. They demonstrated particular strength in outcome assessment and comparability but were often limited by selection bias and lack of randomisation. Studies examining long-term practitioners' health outcomes were of higher quality, while those with shorter follow-up periods or less rigorous methodologies

were of moderate quality. The three survey-based studies scored moderately on the CHERRIES Checklist. While they were well designed in survey development and data protection, they exhibited some risks related to sample representativeness and response bias, potentially limiting the generalisability of their findings.

Overall, the evidence for the health benefits of *Isha Yoga* practices is promising but not definitive. High-quality RCTs support mental health benefits, whereas moderate-quality observational studies and surveys provide additional insights into physical health outcomes and quality of life. Future studies with more rigorous designs, extended follow-up periods, and improved control of potential biases must further strengthen this evidence.

4.6 Potential Mechanisms of Action: The beneficial effects of *Isha Yoga* practices on health outcomes can be attributed to several potential mechanisms.

4.7 Autonomic Regulation: Improvements in Heart Rate Variability (HRV) suggest that *Isha Yoga* enhances autonomic balance, promoting parasympathetic activation and reducing sympathetic overactivity, which is often associated with stress and anxiety.[27,35,36]

Neuroplasticity and Emotional Regulation: The meditation components of *Isha Yoga*, such as *Isha Kriya* and *Shambhavi Mahamudra*, may enhance neuroplasticity, particularly in brain regions associated with emotional regulation, attention, and self-awareness.[25,27,32,35,37]

Inflammation and Metabolic Pathways: Evidence from the *Samyama* program suggests that combining meditation with dietary practices may modulate inflammatory markers and metabolic pathways, contributing to improved cardiovascular and metabolic health.[29,30]

Gut-Brain Axis: Changes in the gut microbiome composition observed in participants of the *Samyama* program highlight a potential role of the gut-brain axis in mediating mental and physical health benefits.[28]

Implications for Practice: The findings from this review suggest that *Isha Yoga* practices could be integrated into health promotion and disease management strategies, particularly for mental health conditions, such as anxiety, depression, and stress-related disorders. These practices are accessible, cost-effective, and associated with minimal risk, making them suitable for diverse populations including those with limited access to conventional care.

However, practitioners should be cognizant of the varying quality of evidence that supports different health outcomes. While high-quality studies support mental health benefits, more rigorous research is necessary to establish the full range of physical health benefits and confirm the mechanisms underlying these effects.

Limitations and Future Directions: This review had several limitations, including the heterogeneity of the included studies, which varied in design, population, intervention type, and outcome measures. The reliance on self-reported data in many studies and the potential for publication bias further limit the strength of our conclusions. Additionally, many studies had small sample sizes and short follow-up periods, limiting their ability to detect long-term effects.

Future research should focus on conducting larger, well-designed randomised controlled trials (RCTs) with extended follow-up periods to evaluate the long-term effects of *Isha Yoga* practices on mental and physical health outcomes. Comparative studies examining different forms of yoga and other mind-body practices could also help elucidate the unique benefits of *Isha Yoga.* Moreover, mechanistic studies exploring the biological pathways underlying these effects would provide valuable insights into how these practices promote health and wellbeing.

5. CONCLUSION

This review highlights the mental and physical health benefits associated with Isha Yoga practices, including the reduction of stress, anxiety, and depression as well as the enhancement of overall well-being. Although the findings are promising, the heterogeneity in study quality necessitates cautious interpretation. *Isha Yoga* practices are characterised by accessibility, cost-effectiveness, and general safety, rendering them suitable as complementary approaches in mental healthcare and preventive health strategies. Future research should focus on corroborating these effects through more extensive, well-designed trials, and investigating the underlying mechanisms of these health-promoting effects. Comparative studies examining various forms of yoga and other mind-body practices will elucidate the unique contributions of *Isha Yoga*. Furthermore, mechanistic studies exploring the biological and psychological pathways involved are crucial for elucidating the mechanisms by which these practices exert their health-promoting effects.

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None

7. AUTHOR CONTRIBUTIONS

All authors have read and approved the final version of the manuscript.

8. ETHICAL STATEMENT

Ethical approval was not required for this study as it was a review article with data obtained through a literature search.

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The authors declare that no financial support has been

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10. CONFLICT OF INTERESTS

The authors declare no conflicts of interest regarding the publication of this paper.

11. DATA AVAILABILITY STATEMENT

The data analysed in this review were obtained from publicly available sources, including peer-reviewed articles, observational studies, and surveys, accessible via databases, such as PubMed, Scopus, and Web of Science.

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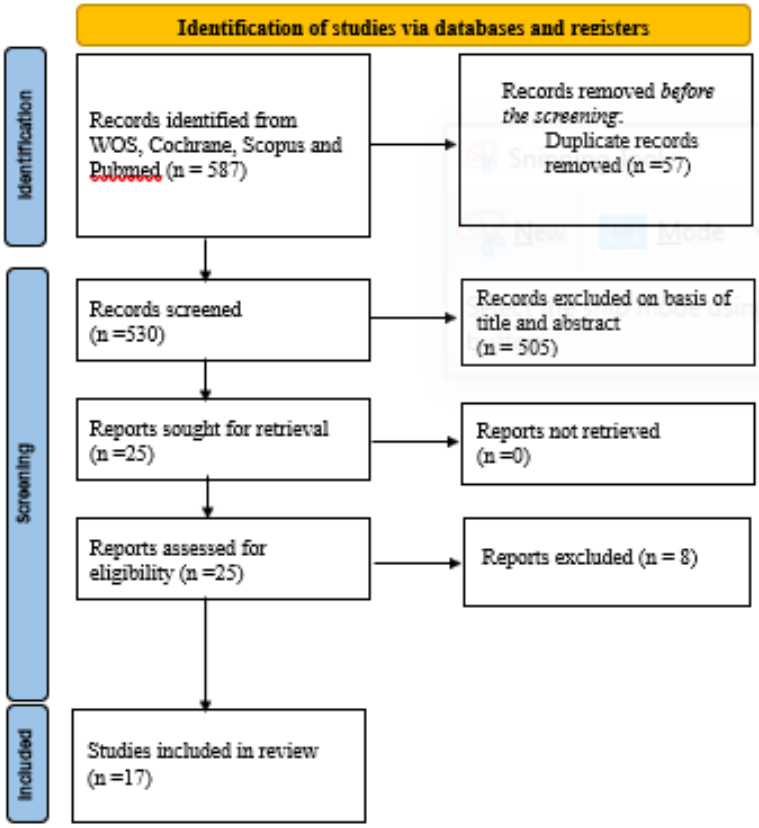

Figure 1

Summarized search strategy (Preferred Reporting Items for Systematic Reviews and Meta-Analyses flow diagram)

Table 1: Complete Summary of Study Characteristics on Isha Yoga

Study	Study Type	Population	Intervention	Sample Size	Duration	Outcomes Measured	Main Findings
Chopra et al., 2023 [21]	RCT	HCT recipients	Isha Kriya	72	1 month	Quality of Life (FACT-BMT, PROMIS-GH)	Transient improvement in BMT-specific QoL, no significant changes in overall QoL or global health scores
Chang et al., 2022 [22]	RCT	College students	Isha Upa Yoga	679	12 weeks	Stress, Anxiety, Well-being	Reduced stress and anxiety, improved well-being
Narayanan et al., 2020 [33]	Randomized	Hospitalized cancer patients	Isha Kriya, Meditative Slow Breathing	40	7 days	Feasibility, Acceptability	Acceptable meditation practices, potential for future studies
Muralikrishnan et al., 2012 [36]	Controlled Comparative	Isha Yoga practitioners vs. non-practitioners	Short-term HRV during Isha Yoga	28	Short-term	Cardiac autonomic function	Increased HRV and balanced autonomic function
Raman et al., 2023 [28]	Non-Randomized Trial	Samyama participants	Samyama program + Vegan diet	288	5 months	Gut microbiome, Metabolites	Significant changes in gut microbiota composition, increased beneficial bacteria
Rangasamy et al., 2019 [34]	Prospective Interventional Pilot	Operating room professionals	Isha Kriya	72	1-time 15-min session	Stress, Mood disturbances	Improved mood and reduced stress among healthcare professionals
Kumar et al., 2016 [35]	Quasi-experimental	Healthy volunteers	Isha Hatha Yoga	102	21 days	Core stability, Standing balance	Improved core strength and balance
Upadhyay et al., 2022[26]	Prospective Cohort	IECO participants	Inner Engineering Completion Online (IECO)	164	6 weeks	Stress, Sleep Quality, Mindfulness	Reduced perceived stress, improved sleep quality and mindfulness
Hariri et al., 2022 [23]	Observational	General public	Online Isha Kriya	259	6 weeks	Anxiety, Depression	Reduced anxiety and depression symptoms within 2 weeks, sustained at 6 weeks
Peterson et al., 2017 [24]	Observational Study	General healthy population	Shambhavi Mahamudra Kriya (Pranayama)	142	6 weeks	Perceived Stress (Perceived Stress Scale), GWBS	Significant reduction in perceived stress and improvement in general well-being after 6 weeks of practice.
Selvaraj et al., 2008 [27]	Observational	Healthy yoga practitioners	Shambhavi Mahamudra	8	Short-term	Heart rate dynamics	Dynamic autonomic response, beneficial for cardiovascular function
Sadhasivam et al., 2021 [30]	Observational	Samyama retreat participants	Samyama program	632	3 months	Anxiety, Depression, Biomarkers	Reduced anxiety and depression, increased endocannabinoids and BDNF
Upadhyay et al., 2022 [31]	Observational	Seasoned Isha Yoga practitioners	Regular Isha Yoga practice	334	12 weeks	Stress, Anxiety, Depression, Well-being	Lower stress and anxiety, higher well-being and joy compared to controls
Sadhasivam et al., 2020 [32]	Observational Pilot Study	Adults in meditation retreat	Inner Engineering	323	1 month	Anxiety, Depression, Well-being	Decreased anxiety, depression, and improved mood biomarkers
Braboszcz et al., 2013 [37]	Observational	Isha Yoga practitioners	Isha Yoga meditation retreat	82	3 months	Attentional resource allocation	Enhanced visual attention and cognitive performance

Vishnubhotla et al., 2022 [29]	Longitudinal Study	Samyama participants	Samyama program	64	8-day retreat + 60-day preparation	Inflammation, Lipid Profile, Health Markers	Reduced inflammation and favorable changes in lipid profile, improved HbA1c
Malipeddi et al., 2024 [25]	Survey	Isha Yoga practitioners during COVID-19	Isha Yoga	1462	Cross-sectional	Stress, Mental Distress, Well-being	Lower stress and mental distress, higher well-being

Abbreviations: RCT - Randomized Controlled Trial, HCT - Hematopoietic Cell Transplant, FACT-BMT - Functional Assessment of Cancer Therapy – Bone Marrow Transplant, PROMIS-GH - Patient-Reported Outcomes Measurement Information System – Global Health, QoL - Quality of Life, GWBS - General Well-Being Scale, HRV - Heart Rate Variability, HbA1c - Hemoglobin A1c, IECO - Inner Engineering Completion Online, BDNF - Brain-Derived Neurotrophic Factor, CRP - C-Reactive Protein, SAM - Sympathetic Adrenal Medullary, HPA Axis - Hypothalamic-Pituitary-Adrenal Axis

Table 2: Quality Assessment of Studies on Isha Yoga

Study	Study Type	Selection Bias	Performance Bias	Detection Bias	Attrition Bias	Reporting Bias	Overall Risk of Bias	NOS Score (for Observational)	CHERRIES Score (for Surveys)
Chopra et al[21]	Randomised Controlled Trial	Low	Low	High	Low	Low	Moderate	N/A	N/A
Chang et al.[22]	Randomised Controlled Trial	Low	High	Moderate	Low	High	High	N/A	N/A
Narayanan et al.[33]	Randomised Feasibility Study	Moderate	High	Moderate	Moderate	Low	Moderate	N/A	N/A
Muralikrishnan et al.[36]	Controlled Comparative	Low	Moderate	Low	Moderate	High	Moderate	7/9	N/A
Raman et al.[28]	Non-Randomized Trial	Moderate	Moderate	Low	High	Moderate	Moderate	6/9	N/A
Rangasamy et al.[34]	Prospective Interventional Pilot	High	High	Moderate	Moderate	Low	High	N/A	N/A
Kumar et al.[35]	Quasi-experimental	Moderate	Low	Moderate	Low	Moderate	Moderate	N/A	N/A
Upadhyay et al.[26]	Observational	N/A	N/A	N/A	N/A	N/A	N/A	7/9	N/A
Hariri et al.[23]	Observational	N/A	N/A	N/A	N/A	N/A	N/A	8/9	N/A
Peterson et al.[24]	Observational	Moderate	N/A	Low	Low	Low	Moderate	7/9	N/A
Selvaraj et al.[27]	Controlled Interventional	Moderate		Moderate	Low	Low	Low	N/A	N/A
Sadhasivam et al.[30]	Observational	N/A	N/A	N/A	N/A	N/A	N/A	8/9	N/A
Upadhyay et al.[31]	Observational	N/A	N/A	N/A	N/A	N/A	N/A	7/9	N/A
Sadhasivam et al.[32]	Observational Pilot Study	High	Moderate	Low	High	Moderate	Moderate	N/A	N/A
Braboszcz et al.[37]	Observational	Moderate	Moderate	High	Moderate	Moderate	High	6/9	N/A
Vishnubhotla et al.[29]	Longitudinal Study	N/A	N/A	N/A	N/A	N/A	N/A	7/9	N/A
Malipeddi et al.[25]	Survey	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15/18