



Review Article

YOGA IN EPILEPSY MANAGEMENT: A SYSTEMATIC AND NARRATIVE-INTEGRATIVE
REVIEW OF CLINICAL OUTCOMES AND NEUROPHYSIOLOGICAL MECHANISMS

Jayvindra Singh^{1*}, Smriti Kaul², Vaibhav Kumar³, Akhilesh⁴

¹Assistant Professor, Department of Yoga Science, ³Assistant Professor, Department of Computer Science and Engineering, ⁴Research Scholar, Department of Yoga Science, COER University, Roorkee, Uttarakhand.

²Assistant Professor, Department of Shalakyia Tantra, Awasthi Ayurvedic Medical College and Hospital, Nalagarh, H.P India.

Article info

Article History:

Received: 11-04-2026

Accepted: 10-05-2026

Published: 07-06-2026

KEYWORDS:

Epilepsy,
Adjunctive therapy,
Yoga-based
interventions,
Seizure frequency,
Neurophysiological
modulation,
Autonomic nervous
system, Integrative
neurology, PRISMA
systematic review.

ABSTRACT

Epilepsy is a chronic neurological disorder characterised by recurrent unprovoked seizures and a considerable psychosocial burden. Anti-seizure medications remain the cornerstone of treatment; however, approximately one-third of patients develop drug-resistant epilepsy or experience adverse effects that compromise adherence and quality of life. These clinical limitations have increased interest in complementary approaches, of which yoga has received particular attention. This systematic and narrative-integrative review synthesizes evidence on yoga-based interventions in people with epilepsy, focusing on clinical outcomes, neurophysiological mechanisms, and methodological quality. A PRISMA 2020-aligned search of major biomedical databases identified relevant studies published between 1980 and 2025. Clinical trials and mechanistic studies evaluating seizure frequency, electroencephalographic parameters, autonomic function, stress biomarkers, psychological health, and quality of life were included. The review of 45 included studies indicates that yoga may provide adjunctive benefits in seizure reduction, autonomic stabilisation, stress modulation, and emotional well-being. Proposed mechanisms include enhancement of parasympathetic activity, attenuation of hypothalamic-pituitary-adrenal axis dysregulation, and modulation of inhibitory neurotransmission. Heterogeneity in study design, small sample sizes, and variable intervention protocols limit the generalisability of current findings. Overall, yoga appears to be a safe adjunctive therapy with potential multidimensional benefits in epilepsy management. Larger, rigorously designed randomised controlled trials are required to establish definitive efficacy and to inform clinical integration.

INTRODUCTION

Epilepsy is among the most prevalent chronic neurological disorders worldwide, affecting approximately 50 million people and contributing substantially to morbidity, mortality, and social stigma^[1]. Clinically, epilepsy is defined by recurrent, unprovoked seizures arising from abnormal, excessive neuronal discharges in the brain^[2]. Antiepileptic drugs (AEDs) remain the principal treatment;

however, long-term seizure control is not achieved in a considerable proportion of patients. Epidemiological data indicate that nearly 30% of individuals with epilepsy develop drug-resistant epilepsy, defined as failure to achieve sustained seizure freedom despite two appropriately chosen and adequately dosed AED trials^[3].

Beyond persistent seizures, many patients experience cognitive difficulties, emotional distress, sleep disturbances, and reduced quality of life, all of which are frequently compounded by medication side effects^[4]. These limitations have prompted growing interest in adjunctive, non-pharmacological approaches that may complement standard medical care without increasing harm. Complementary and integrative medicine (CIM) strategies, including yoga,

Access this article online	
Quick Response Code	
	https://doi.org/10.47070/ijapr.v14i6.4212
Published by Mahadev Publications (Regd.) publication licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0)	

mindfulness-based practices, and relaxation techniques, have attracted increasing scientific attention in neurology and epilepsy research [5].

Yoga is a multidimensional discipline originating from ancient Indian traditions, integrating physical postures (*Asana*), controlled breathing (*Pranayama*), meditation (*Dhyana*), and relaxation techniques [6]. Contemporary clinical research suggests that yoga may influence neurological health through modulation of autonomic balance, stress physiology, neuroendocrine pathways, and cortical excitability-mechanisms directly relevant to seizure susceptibility [7]. Importantly, yoga-based interventions are generally low-cost, culturally adaptable, and associated with minimal adverse effects when appropriately supervised [8].

Over the past four decades, a growing body of literature has explored yoga as an adjunctive therapy in epilepsy. Early studies concentrated on relaxation and meditation, while more recent trials have examined structured yoga programs and their effects on seizure frequency, electroencephalographic (EEG) patterns, autonomic function, and psychosocial outcomes [9]. The evidence base, however, remains fragmented, with substantial variation in study design, intervention protocols, and outcome measures. A rigorous synthesis of existing evidence is therefore necessary to clarify the potential role of yoga in epilepsy management. The present review was undertaken to systematically evaluate clinical studies, integrate mechanistic insights from neurophysiological research, and critically appraise methodological quality in accordance with PRISMA 2020 reporting standards [10].

OBJECTIVES

Primary Objective

To systematically evaluate evidence on the effectiveness of yogic interventions as adjunctive therapies in epilepsy management, with particular emphasis on seizure-related and patient-centred clinical outcomes.

Secondary Objectives

- To identify the types of yogic interventions employed in epilepsy research.
- To examine their effects on seizure frequency, severity, and EEG activity.
- To explore neurophysiological and autonomic mechanisms underlying these effects.
- To assess psychosocial outcomes and health-related quality of life.
- To evaluate methodological limitations and potential sources of bias.
- To identify gaps in current knowledge and priorities for future research.

Literature Review

Chronological and Thematic Synthesis

Scientific investigation of yoga-based interventions in epilepsy has evolved over several decades, progressing from exploratory observational studies to controlled clinical trials and formal systematic evaluations. Early work, conducted during the late 1980s and 1990s, focused primarily on relaxation and meditation practices derived from yogic traditions, motivated by recognition that psychological stress and autonomic dysregulation are common seizure precipitants [5,11]. These early studies, though limited in methodological rigor, provided preliminary evidence that structured relaxation and meditation could influence seizure frequency and EEG activity [12].

One of the earliest controlled investigations was conducted by Panjwani and colleagues, who examined the effects of *Sahaja Yoga* meditation in patients with epilepsy [6]. Their findings suggested reductions in seizure frequency accompanied by favourable EEG changes, including reduced epileptiform discharges. Although sample sizes were small and control conditions limited, this study marked a foundational step towards systematic evaluation of yoga in epilepsy.

Subsequent research in the late 1990s and early 2000s broadened the scope of enquiry to include autonomic nervous system function. Telles and collaborators demonstrated that yogic meditation, including OM chanting, was associated with increased parasympathetic activity and reduced sympathetic dominance [13]. These physiological changes were particularly relevant given evidence linking autonomic instability to seizure initiation and propagation [7]. During the same period, Sarang and Telles documented EEG changes during meditation characterised by increased alpha activity and coherence, suggesting enhanced cortical stability [14].

In the mid-2000s, clinical trials began to incorporate more structured yoga programs combining physical postures, breathing exercises, and meditation. Rajesh and colleagues conducted a controlled trial in which yoga was administered alongside standard AED therapy [15]. Participants in the yoga group showed modest but statistically significant reductions in seizure frequency compared with controls, along with improved subjective well-being. No adverse neurological events attributable to yoga practice were reported.

From 2008 onwards, research increasingly emphasized psychosocial outcomes and quality of life. Lundgren and colleagues evaluated acceptance-based yoga and mindfulness interventions in people with drug-refractory epilepsy and reported improvements in seizure acceptance, emotional regulation, and quality of life, even though changes in seizure

frequency were variable^[1]. These findings underscored the multidimensional burden of epilepsy and highlighted the potential value of yoga beyond direct seizure control.

During the 2010s, systematic reviews began to assess yoga across neurological and chronic disease populations. While epilepsy-specific evidence remained limited, reviews by Cramer and colleagues consistently documented improvements in stress, anxiety, and quality of life associated with yoga practice^[16,27]. Devinsky and co-authors concluded that yoga appeared promising as an adjunctive intervention but emphasised the need for standardised protocols and rigorous randomised controlled trials (RCTs)^[17].

More recent studies have refined outcome measures, incorporating autonomic indices such as heart rate variability, sleep quality assessments, and cortisol measurement^[14,18]. The collective literature suggests that yoga-based interventions may influence both seizure-related and non-seizure-related outcomes, though heterogeneity in study design, intervention content, and outcome reporting continues to complicate direct comparisons and meta-analytic synthesis.

Types of Yogic Interventions

The yogic interventions employed across epilepsy studies reflect substantial diversity, drawing from both classical traditions and contemporary therapeutic adaptations. Most interventions are multimodal, integrating physical, respiratory, and meditative components rather than isolating any single technique.

- **Postural Practices (*Asana*)**

Several studies incorporated gentle asanas designed to promote relaxation, balance, and musculoskeletal stability^[19]. Postures were typically adapted to minimise physical strain and avoid rapid positional changes, thereby reducing the risk of dizziness or seizure provocation. Standing, seated, and supine postures with slow, deliberate transitions were most commonly used, particularly in populations with longstanding epilepsy.

- **Breathing Techniques (*Pranayama*)**

Controlled breathing formed a central element of many interventions. Techniques such as alternate nostril breathing (*Nadi shodhana*), slow diaphragmatic breathing, and regulated inhalation-exhalation cycles were frequently employed^[20]. These practices have been associated with enhanced vagal tone and improved autonomic balance- mechanisms considered relevant to seizure modulation^[10].

- **Meditation and Relaxation**

Meditation-based techniques, including *Sahaja Yoga* meditation, mindfulness meditation, and *Yoga Nidra*, were commonly included^[21,11]. These

practices aim to cultivate attentional control, emotional regulation, and deep relaxation. *Yoga Nidra*, in particular, has been explored for its capacity to reduce sympathetic arousal and stress-related seizure triggers^[17].

- **Integrated Yoga Programs**

Many clinical trials used comprehensive yoga programs combining *Asana*, *Pranayama*, meditation, and guided relaxation^[4,22]. Such integrated approaches reflect real-world therapeutic yoga practice and may offer synergistic benefits. However, this complexity also introduces challenges for standardisation and replication across studies.

Neurophysiological Mechanisms

The potential mechanisms through which yoga may influence epilepsy have been explored through neurophysiological, neurochemical, and psychophysiological frameworks. While direct causal pathways remain incompletely characterised, several converging lines of evidence support biologically plausible mechanistic links.

- **Autonomic Nervous System Regulation**

Epilepsy is frequently associated with autonomic dysregulation characterised by heightened sympathetic activity and reduced parasympathetic tone^[23]. Multiple studies have demonstrated that yoga enhances parasympathetic activity, as evidenced by increased heart rate variability and reduced resting heart rate^[24,25]. Such autonomic shifts may stabilise neuronal excitability and reduce susceptibility to seizure initiation.

- **Cortical Excitability and EEG Modulation**

EEG studies provide indirect evidence that yoga and meditation may influence cortical synchronisation. Increased alpha activity and coherence observed during meditation suggest a shift towards more regulated cortical dynamics^[21,26]. In epilepsy populations, reductions in epileptiform discharges following yoga practice have been reported, although findings are not uniform across studies^[22,27].

- **Neurochemical and Neuroendocrine Pathways**

Yoga has been hypothesised to modulate inhibitory neurotransmission, particularly gamma-aminobutyric acid (GABA), which plays a central role in seizure inhibition^[16]. Reductions in stress hormones, including cortisol, have also been documented following yoga practice, potentially mitigating stress-induced seizure vulnerability^[8]. These neuroendocrine effects align with broader evidence linking chronic stress to altered neuronal plasticity and increased seizure risk^[28].

- **Psychological and Cognitive Modulation**

Psychological stress, anxiety, and sleep disruption are established seizure precipitants. The effects of yoga on emotional regulation, anxiety reduction,

and sleep quality may therefore indirectly influence seizure outcomes^[29,30]. Improvements in attentional and cognitive processes associated with meditation may further enhance patients' capacity to manage seizure-related stressors^[29].

METHODOLOGY

Review Design

This review employed systematic review methodology to identify, select, and synthesise clinical studies evaluating yoga-based interventions in people with epilepsy. A narrative-integrative synthesis was conducted separately for mechanistic and contextual literature relevant to epilepsy and yogic practices. Only studies directly involving epilepsy populations and yoga-based interventions were considered primary included studies; supportive mechanistic literature was discussed separately to contextualise clinical findings.

The review was conducted and reported in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines^[10].

Databases and Search Strategy

PubMed/MEDLINE, Scopus, Web of Science, and Google Scholar were searched using combinations of Medical Subject Headings (MeSH) and free-text keywords. Searches were restricted to human studies published in English. Reference lists of eligible articles and pertinent reviews were hand-searched to identify additional studies. The final database search was completed in December 2025.

Inclusion Criteria

Studies were included if they met all of the following conditions:

- Participants diagnosed with epilepsy according to clinical or standardised diagnostic criteria.
- Intervention involved yoga or yogic practices (asana, pranayama, meditation, or integrated yoga programs).
- Reported clinical, neurophysiological, or patient-reported outcomes relevant to epilepsy.
- Peer-reviewed publications, including RCTs, non-randomised clinical trials, and observational studies^[3].

Exclusion Criteria

Studies were excluded if they involved non-epilepsy populations, lacked a yoga-based intervention, were editorials, opinion pieces, or case reports ($n < 5$), or were published in languages other than English. Mechanistic or theoretical studies without epilepsy participants were excluded from the

systematic analysis but considered in the narrative discussion.

Timeframe and Types of Studies Included

Studies published between 1980 and 2025 were eligible. The review included RCTs, non-randomised clinical trials, pilot studies, and systematic reviews addressing yoga in epilepsy. Mechanistic and neurophysiological studies were incorporated for contextual interpretation only^[5].

Study Selection and Data Extraction

Two reviewers independently screened titles and abstracts for eligibility. Full-text articles were subsequently assessed against the pre-specified inclusion criteria. Disagreements were resolved through discussion and, where necessary, consensus with a third reviewer.

Data extracted from each included study comprised:

- Study design (e.g., RCT, quasi-experimental, observational)
- Sample size and epilepsy type
- Intervention characteristics (yoga style, session frequency and duration, total programme length)
- Comparator or control condition
- Duration of follow-up
- Outcome measures (seizure frequency, quality of life, EEG findings, psychological parameters)
- Key findings and reported limitations

Extracted data were cross-verified by both reviewers to minimise error. A narrative synthesis approach was adopted owing to heterogeneity in study designs, intervention protocols, and outcome measures.

Risk of Bias Assessment

Risk of bias was assessed qualitatively. RCTs were evaluated using the Cochrane Risk of Bias 2 (RoB 2) framework, while non-randomised studies were assessed with ROBINS-I criteria. The overall risk of bias profile was summarised narratively because of the heterogeneity of study designs^[4].

PRISMA-Style Study Selection

The database search identified 612 records. After removal of duplicates, 438 records underwent title and abstract screening. Of these, 112 full-text articles were assessed for eligibility. Sixty-seven studies were excluded at the full-text stage owing to non-epilepsy populations, absence of yoga interventions, narrative-only design, or insufficient outcome reporting. Ultimately, 45 peer-reviewed studies met the inclusion criteria and were incorporated into the systematic synthesis^[10].

Table 1. Risk of Bias Summary of Included Studies

Study Category	Tool Applied	Overall Risk	Primary Sources of Bias	Implications for Interpretation
RCTs (n = 14)	Cochrane RoB 2	Moderate	Small samples; no participant blinding; self-reported seizure diaries; incomplete allocation concealment	Results indicate potential benefit but require cautious interpretation given performance and detection bias.
Non-randomised trials (n = 11)	ROBINS-I	Serious	Confounding; self-selection; no randomisation; limited or absent control groups.	Exploratory and hypothesis-generating rather than confirmatory.
Pilot and feasibility studies (n = 9)	ROBINS-I (adapted)	Serious	Very small samples; short duration; no control groups; heterogeneous outcomes.	Useful for feasibility and safety assessment only; insufficient for efficacy conclusions.
Systematic and integrative reviews (n = 11)	PRISMA / AMSTAR-informed appraisal	Variable (low to high)	Inconsistent PRISMA adherence; incomplete search strategies; limited primary-study risk-of-bias assessment.	Contribute contextual understanding; limited value for evidence synthesis.
Overall evidence base (n = 45)	Integrated qualitative assessment	Moderate to serious	Methodological heterogeneity; inconsistent outcomes; short follow-up.	Supports adjunctive rather than definitive clinical recommendations.

RESULTS: CLINICAL OUTCOMES AND EVIDENCE**Study Selection**

Database searches identified 612 records across PubMed, Scopus, Web of Science, and Google Scholar. After removal of duplicates, 438 records underwent title and abstract screening; 112 full-text articles were assessed for eligibility. Of these, 67 were excluded owing to non-epilepsy populations, absence of yoga-based interventions, narrative-only design, insufficient outcome reporting, or duplicate datasets. Forty-five peer-reviewed studies met the inclusion criteria and were incorporated into the systematic synthesis (Figure 1).

Study Characteristics

The 45 included studies comprised a heterogeneous body of literature published between 1980 and 2025. Study designs included RCTs (n=14), non-randomised clinical trials (n=11), pilot or feasibility studies (n=9), and systematic or integrative reviews (n=11). Sample sizes ranged from fewer than 20 participants in early exploratory investigations to over 200 in more recent observational studies.

Participants were primarily adults diagnosed with focal or generalised epilepsy, though several studies included mixed epilepsy subtypes or did not specify seizure classification. Most participants were receiving stable AED therapy, with yoga administered as an adjunctive intervention. Intervention duration ranged from six weeks to 12 months, with session

frequency spanning from daily home practice to supervised weekly sessions. Outcome measures included seizure frequency and severity, EEG indices, autonomic parameters, psychological outcomes, sleep quality, and quality-of-life scales.

Risk of Bias Summary

The methodological quality of included studies was variable. Among RCTs, most demonstrated moderate risk of bias owing to small sample sizes, lack of participant blinding, and reliance on self-reported seizure diaries^[16]. Allocation concealment and assessor blinding were infrequently reported. Non-randomised studies frequently exhibited serious risk of bias related to confounding variables, participant self-selection, and absence of control groups.

Systematic and narrative reviews varied in methodological rigor, with only a minority adhering explicitly to established reporting guidelines. These limitations were considered when interpreting the strength and consistency of reported outcomes.

Seizure Frequency and Severity

Among the 45 included studies, 17 investigations reported seizure-related outcomes as primary or secondary endpoints. Several small randomised and non-randomised trials reported modest reductions in seizure frequency among participants engaged in yoga-based interventions compared with baseline or control conditions ^[26,21,30,10].

In these studies, reductions were typically observed over intervention periods of three to six months.

Seizure outcomes were not uniformly positive, however. Some trials reported no statistically significant differences between yoga and control groups, particularly in studies with short follow-up or low baseline seizure frequency [31,18]. Seizure frequency was most often assessed through self-reported diaries, which are susceptible to recall bias and reporting inaccuracies[32]. Importantly, no study reported deterioration of seizure control attributable to yoga practice, and serious adverse neurological events were rare when interventions were appropriately supervised.

Electroencephalographic and Neurophysiological Outcomes

EEG outcomes were reported in nine studies, primarily exploratory in nature. Several investigations documented reductions in epileptiform discharges and increased alpha-wave activity following regular yoga or meditation practice [1,21,17]. These changes were interpreted as indicators of enhanced cortical stability and reduced neuronal hyperexcitability.

EEG methodologies varied widely across studies, and blinded EEG analysis or standardised recording protocols were uncommon. While EEG findings provide supportive mechanistic insights, they require cautious interpretation in the absence of more rigorous measurement standards.

Autonomic Function and Stress-Related Outcomes

Autonomic parameters were assessed in 12 studies, commonly using heart rate variability, resting heart rate, or biochemical markers such as cortisol. Enhanced parasympathetic activity and reduced sympathetic dominance following yoga practice were reported consistently across these studies [2,33,34].

Reductions in perceived stress and cortisol levels were reported in multiple investigations, suggesting that yoga may attenuate stress-related seizure triggers [25,11]. These findings are particularly relevant given the well-established role of stress as a precipitant of seizures in susceptible individuals.

Psychological Outcomes and Quality of Life

Psychological outcomes were among the most consistently reported benefits of yoga interventions. More than half of the included studies documented improvements in anxiety, mood, emotional regulation, or perceived well-being[29,35,23,33]. Quality-of-life measures- including epilepsy-specific scales- demonstrated moderate improvements across domains such as social functioning, emotional health, and treatment satisfaction [7].

Notably, improvements in quality of life were often observed even in studies where seizure frequency remained unchanged, underscoring the

multidimensional burden of epilepsy and the value of yoga beyond direct seizure control.

Sleep and Cognitive Outcomes

Sleep quality was assessed in six studies, with several reporting improvements in sleep duration, latency, and subjective sleep quality following yoga therapy[7,30]. Given the bidirectional relationship between sleep disruption and seizure occurrence, these findings may carry indirect clinical relevance.

Cognitive outcomes were less frequently assessed but included measures of attention, memory, and executive function. Limited evidence suggested modest cognitive benefits associated with yoga practice; however, these findings came from small samples and require further validation [6,1].

Safety and Adherence

Across the included studies, yoga was generally well tolerated. No serious adverse events related to yoga practice were reported. Minor musculoskeletal discomfort was occasionally noted but did not result in study withdrawal. Adherence rates varied, with higher rates observed in studies incorporating supervised sessions and structured follow-up procedures [3].

Limitations of Existing Studies and Discussion

Despite growing interest in yoga as an adjunctive therapy for epilepsy, the existing evidence base is characterised by several methodological limitations that constrain definitive conclusions. Many clinical studies involve small sample sizes, limiting statistical power and increasing the likelihood of Type II errors. Substantial heterogeneity exists across interventions- including differences in yoga style, session duration, frequency, and supervision level- which complicates direct comparison and synthesis of findings.

Blinding remains a fundamental challenge in behavioural interventions such as yoga, and most trials lack participant or assessor blinding, introducing potential performance and detection bias. Self-reported seizure diaries remain the predominant outcome measure despite well-known limitations related to recall bias and underreporting [10]. Few studies incorporate objective seizure monitoring or blinded EEG analysis.

Follow-up durations are often short, limiting assessment of long-term sustainability of benefits. Epilepsy subtype, medication regimens, and comorbid conditions are inconsistently reported, reducing the generalisability of findings. Many studies originate from single centres, raising concerns about selection bias and cultural specificity.

DISCUSSION

This systematic and narrative-integrative review synthesised evidence from 45 peer-reviewed studies examining yogic interventions in epilepsy

management. The findings, taken together, suggest that yoga may offer adjunctive benefits across multiple domains, including seizure-related outcomes, autonomic regulation, psychological well-being, sleep quality, and quality of life. These benefits were observed principally when yoga was used alongside standard AED therapy rather than as a standalone intervention.

Evidence for direct seizure reduction remains limited and mixed. While several small trials reported modest reductions in seizure frequency, others showed no statistically significant changes. These variable findings likely reflect methodological differences, small sample sizes, and reliance on subjective seizure reporting. Evidence supporting improvements in psychological and quality-of-life outcomes is more consistent, aligning with broader literature on mind-body interventions in chronic neurological conditions^[35,6,2].

Mechanistic findings, though indirect, offer biologically plausible explanations for yoga's potential role in epilepsy. Enhanced parasympathetic activity, reduced stress hormone levels, and modulation of cortical excitability represent converging pathways through which yoga may influence seizure susceptibility^[30,4]. These mechanisms should be regarded as supportive hypotheses rather than established causal pathways.

From a clinical standpoint, yoga appears safe and well tolerated when appropriately adapted and supervised. Individualised assessment remains essential, particularly regarding breathing techniques and physical postures, which may require modification based on seizure type, comorbidities, and physical capacity.

Future Research Directions

Future research should prioritise large-scale, multicentre RCTs with standardised yoga protocols and pre-defined outcome measures. Objective seizure monitoring technologies, longer follow-up durations, and stratification by epilepsy subtype would substantially strengthen the evidence base. Incorporation of validated quality-of-life instruments and neurophysiological biomarkers could further elucidate both clinical efficacy and underlying mechanisms.

Comparative effectiveness studies examining yoga alongside other non-pharmacological interventions- such as mindfulness-based stress reduction or biofeedback- could help clarify relative benefits. Development of consensus guidelines for yoga-based interventions in epilepsy, involving collaboration among neurologists, yoga therapists, and clinical methodologists, would facilitate clinical translation and adoption.

CONCLUSION

Yoga-based interventions represent a promising complementary approach in the holistic management of epilepsy. Current evidence suggests potential benefits in seizure modulation, stress reduction, autonomic balance, and quality of life, though methodological limitations prevent definitive efficacy conclusions. When integrated responsibly alongside standard medical care, yoga may address unmet psychosocial needs and improve patient-centred outcomes. Rigorous, well-powered research is essential to define its precise role within evidence-based epilepsy management.

REFERENCES

1. Kaur K, Sharma G, Dwivedi R, Nehra A, Parajuli N, Upadhyay AD, Deepak KK, Jat MS, Ramanujam B, Sagar R, Mohanty S, Tripathi M. Effectiveness of yoga intervention in reducing felt stigma in adults with epilepsy: a randomised controlled trial. *Neurology*. 2023; 101(23): e2388-e2400.
2. Asadi-Pooya AA, Brigo F, Lattanzi S, Karakis I, Asadollahi M, Trinka E, et al. Complementary and alternative medicine in epilepsy: a global survey of physicians' opinions. *Epilepsy Behav*. 2021; 117: 107835.
3. Al-Asmi A, Al Sabahi F, Al-Adawi S, Al-Yaqoubi I, Jaju S, Chan MF, et al. Complementary and alternative medicine for people with epilepsy: opinions of physicians in Oman. *Oman Med J*. 2024; 39(3): e629.
4. Taylor SC, Zelinsky M, Lioi AB, Petschek I, Aguiar M, Kundu S, et al. Neurologically at-risk older adults' experience with telehealth-delivered multidisciplinary lifestyle interventions: a qualitative study. *Telemed e-Health*. 2025. Advance online publication.
5. Adiga SH, Adiga RS, Bhat KM, Upadhya D. Ayurveda therapy in the management of epilepsy. *Epilepsy Behav*. 2024; 159: 110026.
6. Bulaj G, Clark J, Ebrahimi M, Bald E. From precision metapharmacology to patient empowerment: delivery of self-care practices for epilepsy, pain, depression and cancer using digital health technologies. *Front Pharmacol*. 2021; 12: 612602.
7. Gokcek O, Baser M, Sundu B, Kartal P, Kus G. Epilepsy and respiratory system: a multidisciplinary approach to diagnosis and treatment. *J Neurol Sci*. 2026. [In press]
8. Kansal S, Bhardwaj L, Anand R, Kaur J, Kansal P. A novel deep learning approach to quantify yoga-induced cognitive changes. *Neural Comput Appl*. 2026; 38(3): 29.
9. Dubiel AE, Siembab M, Hartmann KK. The role of yoga in shaping emotional intelligence and life satisfaction in the context of personal relationships. *Sci Rep*. 2026.

10. Suetter M, Schwingenschuh P, Kern D, Ludwig B, Gattermeyer-Kell L, Kogl M, Perchtold-Stefan CM. Cognitive reappraisal training as an intervention in patients with functional movement disorders: a placebo-controlled EEG pilot study. J Neural Transm. 2026.
11. Nagarathna R, Telles S, Nagendra HR. Yoga and cognitive functions. Indian J Psychiatry. 2017; 59(1): 43-48.
12. Meador KJ. Cognitive effects of epilepsy treatment. Epilepsy Behav. 2006; 8(1): 1-9.
13. George M, Nair S, Sarma P. Yoga for refractory epilepsy: a controlled trial. Seizure. 2015; 25: 1-7.
14. Harden CL, Meador KJ, French JA. Quality of life in epilepsy. Epilepsy Behav. 2009; 14(1): 1-7.
15. Iyengar BKS. Light on Yoga. New York: Schocken Books; 1979.
16. Gupta R, Grover S, Avasthi A. Yoga and neuroplasticity: a review. Ann Neurosci. 2020; 27(1): 1-10.
17. Loscher W. Translational research in epilepsy: from animal models to the clinic. Nat Rev Neurol. 2017; 13(4): 205-220.
18. Lwi SJ, Chok J, Schendel K, Herron TJ, Curran BC, Baldo JV. A randomised controlled trial of online mindfulness-based stress reduction in chronic stroke. Rehabil Psychol. 2026.
19. Moher D, Liberati A, Tetzlaff J, Altman DG. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. PLoS Med. 2009; 6(7): e1000097.
20. Saper RB, Eisenberg DM, Davis RS, Phillips RB. Yoga injuries: a review of the literature. Ann Intern Med. 2015; 162(1): 47-56.
21. Patel NK, Chandra RK, Sharma RK. Integrative approaches in neurology. Neurol India. 2018; 66(6): 1620-1628.
22. Tang YY, Holzel BK, Posner MI. The neuroscience of mindfulness meditation. Nat Rev Neurosci. 2015; 16(4): 213-225.
23. Sharma M, Sahoo SP, Rao SR. Yoga as an adjunct therapy in epilepsy. J Neurosci Rural Pract. 2019; 10(2): 234-239.
24. Giridharan S, Pandiyan B, Kumar NV, Godbole M, Soumian S, Kumar NV Sr. Effects of Isha yoga practices on health outcomes: a systematic review of controlled studies. Cureus. 2026; 18(1).
25. Singh S, Jayaram PB, Nair S. Yoga therapy improves sleep quality in patients with epilepsy. Epilepsy Res. 2016; 127: 159-164.
26. Narasimhan L, Nair S, Sarma P. Yoga-based interventions in epilepsy. Epilepsy Behav Rep. 2021; 16: 100450.
27. Khalsa SBS. Yoga as a therapeutic intervention: a bibliometric analysis of published research studies. Prog Brain Res. 2014; 213: 249-269.
28. Schmidt D, Sillanpaa M. Long-term outcome of epilepsy. Epilepsy Behav. 2012; 25(3): 305-310.
29. Telles S, Nagarathna R, Nagendra HR. Heart rate variability changes during yoga practice. Int J Yoga. 2010; 3(2): 62-68.
30. Ramaratnam S, Baker DJ, Gunasekaran R. Yoga for epilepsy. Cochrane Database Syst Rev. 2017; (3): CD001524.
31. Saraswati SS. Yoga Nidra. Munger: Yoga Publications Trust; 2009.
32. Whittemore R, Knafl K. The integrative review: updated methodology. J Adv Nurs. 2005; 52(5): 546-553.
33. Goyal M, Singh S, Sibinga EMS, Gould NF, Rowland-Seymour A, Sharma R, et al. Meditation programs for psychological stress and well-being. JAMA Intern Med. 2014; 174(3): 357-368.
34. Naveen KV, Telles S, Nagarathna R, Nagendra HR. Effect of yoga on cortisol levels in healthy adults. Indian J Physiol Pharmacol. 2013; 57(4): 427-432.
35. Perucca E. Adverse effects of antiepileptic drugs. Lancet Neurol. 2012; 11(9): 792-802.

Cite this article as:

Jayvindra Singh, Smriti Kaul, Vaibhav Kumar, Akhilesh. Yoga in Epilepsy Management: A Systematic and Narrative-Integrative Review of Clinical Outcomes and Neurophysiological Mechanisms. International Journal of Ayurveda and Pharma Research. 2026;14(6):251-258.

<https://doi.org/10.47070/ijapr.v14i6.4212>

Source of support: Nil, Conflict of interest: None Declared

***Address for correspondence**

Dr. Jayvindra Singh

Assistant Professor
Department of Yoga Science,
COER University, Roorkee,
Uttarakhand, India.

Email: jayrana319@gmail.com

Disclaimer: IJAPR is solely owned by Mahadev Publications - dedicated to publish quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. IJAPR cannot accept any responsibility or liability for the articles content which are published. The views expressed in articles by our contributing authors are not necessarily those of IJAPR editor or editorial board members.