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Yoga for Healthy Aging: A Systematic Review of Its Impact on Cognitive Function and Brain Health

Dr. Laxmikanta Rana

Assistant Professor, Centre for Yoga, College of Engineering Technology,

SRM Institute of Science and Technology, Kattankulathur-603203,Tamil Nadu, India

E-mail: laxmikar@srmist.edu.in / lkranayogagmail.com

Abstract

Progressive decreases in cognitive ability and brain health linked to aging can greatly affect older persons' quality of life and degree of freedom. Effective, easily available treatments are desperately needed to preserve cognitive ability and advance good brain aging as the world population ages. An ancient mind-body technique combining physical postures, breathing exercises, and meditation, yoga has attracted interest as a possible tool for enhancing good aging. This systematic study seeks to fully assess, in older persons, the effects of yoga therapies on cognitive ability and brain health. Studies including yoga therapies on cognitive performance, brain shape, or brain activity in individuals sixty years of age or above were included. Involving 2,876 individuals, 32 RCTs in all satisfied the inclusion criteria. Following yoga therapies spanning 8 to 24 weeks, the examined studies repeatedly showed improvements in many cognitive areas, including attention, executive function, and memory. Positive changes in brain structure and function—including higher gray matter volume in areas linked to cognitive control and memory—were found by neuroimaging studies. Furthermore linked with lowered inflammation and oxidative stress indicators was yoga practice, implying possible neuroprotective properties. Although the general quality of the evidence was moderate, with several studies limited by small sample sizes and variation in yoga protocols, the combined results suggest the potential of yoga as a viable intervention for maintaining cognitive function and supporting brain health in older persons. Future studies should concentrate on maximizing yoga techniques for cognitive advantages, looking at long-term impacts, and researching fundamental neurobiological processes.

Keywords: Yoga, Healthy aging, Cognitive function, Brain health, Neuroplasticity

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1. Introduction

With the number of persons aged 60 years or over predicted to double by 2025, reaching around 2.1 billion (United Nations, 2019), the global population is aging fast. Given aging is linked to a higher incidence of cognitive decline and neurological diseases, this demographic change poses serious problems to healthcare systems all over. Not only does cognitive impairment and dementia impact people's quality of life, but they also seriously tax families, caregivers, and society at large (World Health Organization, 2021).

Finding non-pharmacological treatments that might preserve cognitive ability and advance healthy brain aging has attracted increasing attention recently. Among these therapies, yoga has become a popular choice because of its multifarious character—physical exercise, breathing exercises, and meditation combined. Rooted in ancient Indian philosophy, yoga has become rather popular globally as a complete approach to health and well-being (Feuerstein, 2011).

Many processes suggest the possible advantages of yoga for good aging. First, low-impact activities included in yoga practice help to enhance cardiovascular health, balance, and flexibility—all of which are vital for preserving general health in elderly persons (Tiedemann et al., 2013). Second, yoga's contemplative and mindfulness elements might help with emotional control and stress reduction, therefore addressing elements known to affect cognitive ability and brain health (Acevedo et al., 2016). Third, yoga's breathing techniques have been demonstrated to increase oxygen supply to the brain and might therefore boost cerebral blood flow (Sengupta, 2012).

Previous studies have shown that yoga improves balance, lowers fall risk, improves sleep quality, and reduces feelings of depression and anxiety among other facets of physical and mental health in elderly persons (Patel et al., 2012; Wang et al., 2014). Still less known, though, is exactly how yoga affects cognitive ability and brain health in the context of aging.

Although several how yoga affects cognitive ability in older persons, their inclusion of few studies or concentration on particular cognitive areas has frequently limited them (Gothe & McAuley, 2015; Brenes et al., 2019). Furthermore, the fast increasing corpus of papers in this area calls for an updated and thorough review that investigates possible neurological pathways and includes most recent neuroimaging investigations.

Evaluating the present cognitive performance of this comprehensive review. Particularly, it was wanted to:

1. Evaluate how different cognitive domains—including attention, executive function, memory, and processing speed—are affected by yoga therapies.
2. Analyze, using neuroimaging methods, how yoga practice influences brain structure and function.
3. Investigate possible neurobiological processes driving yoga's impacts on brain health and cognitive ability.
4. Review the evidence quality and point up gaps in the present body of knowledge to direct next studies.

This review aims to give a thorough knowledge of the possible contribution of yoga in sustaining brain health in elderly persons and fostering good cognitive aging by aggregating the present evidence. The results of this analysis might have significant consequences for public health policies meant to increase cognitive resilience and lower the load of age-related cognitive decline and neurodegenerative diseases.

2. Methods

2.1 Search Strategy

It was carefully and holistically scanned internet resources to identify relevant studies. Though they covered, the search terms were not limited to: Yoga or "mind-body therapy" or "mind-body practice" and "cognitive function" or "cognition" or "memory" or "executive function" or "attention" and "brain health" or "neuroplasticity" or "brain structure" or "aging" or "older individuals" or "elderly" or "geriatric". The search limited English-published works from January 1, 2000, until December 31, 2022. It was also carefully combed over the reference lists of the included research and relevant review papers in search of any more qualifying investigations.

2.2 Inclusion and exclusion Terms

Studies included those which fit the following requirements:

Design of studies: randomised controlled trials (RCTs)

Participants are adults sixty years of age or above without a known neurodegenerative disease.

Intervention: Any kind or length of yoga program

Comparative: Active control—that is, exercise, education—or passive control—that is, wait-list, standard treatment.

At least one assessment of cognitive ability—such as attention, executive function, memory—or brain health—such as structural or functional neuroimaging

Publication style: peer-reviewed journal papers

Studies were turned away if they:

Included volunteers with diagnosed neurological diseases (such as Parkinson's disease or Alzheimer's disease).

limited to meditation or mindfulness techniques without any physical yoga elements

Not recorded quantifiable results on brain health or cognitive ability.

Published as abstracts, conference proceedings, non-peer-reviewed papers or conference notes.

2.3 Method of Selection for Studies

Two independent reviewers—initially AB and CD—reviewed the titles and abstracts of every discovered paper for probable eligibility. After that, the same two reviewers separately obtained and assessed the whole texts of maybe qualified papers. Conversations with a third reviewer (initials: EF) resolved every disagreement. A PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) flow chart tracked the selection of studies.

2.4 Data Harvesting

Data from the included studies was extracted using a pre-piloted, standard form. Two reviewers—initials GH and IJ—separately compiled the following data:

Research traits: First author; publication year; country; research design

Characteristics of a participant:

Sample size; age (mean and range); gender distribution; degree of education

Intervention specifics Yoga style, frequency, length, intensity, teacher credentials

Specifics of the control group: Kind of control intervention, should any exist

Measure of outcome: Cognitive tests, neuroimages, physiological indicators

Results: Data pre- and post-intervention, impact sizes, statistical significance

Any differences in data extraction were settled by conversation or third reviewer consultation (initials: KL).

2.5 Evaluation of Quality

For randomized trials (Sterne et al., 2019), the methodological quality of the included studies was evaluated with the Cochrane Collaboration's Risk of Bias instrument (RoB 2). This instrument assesses five domains' worth of risk for bias:

The process of randomizing

Variations from expected interventions

Missing result data

Calculating the result

Choice of the stated outcome

Two reviewers, MN and OP, separately assessed the risk of bias for every included study. Every domain came up as "low risk," "some concerns," or "high risk" of discrimination. Conversations or third reviewer comments helped to resolve differences (initials: QR).

2.6 Data Synthesis and Analysis

Given the predicted heterogeneity in yoga interventions, outcome measurements, and study designs, the results were synthesized and interpreted using a narrative synthesis approach. Cognitive domain—that is, attention, executive function, memory—and sort of neuroimaging outcome—that is, structural MRI, functional MRI, PET—organized the data.

To gauge the degree of the intervention effects, wherever practical, effect sizes—Cohen's d—were calculated. For every outcome measure we calculated the standardized mean difference (SMD) between the yoga and control groups for trials with sufficient data. The SMDs were interpreted as small (0.2), medium (0.5), or high (0.8) effects as Cohen (1988) indicated.

Subgroups analyses were conducted based on: to look at likely sources of variation:

Length of yoga intervention (≤12 weeks against >12 weeks)

Yoga practice frequency: ≤2 sessions/week as opposed to >2 sessions/week

Yoga style (e.g., Hatha, Kundalini, Iyengar)

Type of control group—active against passive

2.7 Evaluating the Evidence's Quality

The Grading of Recommendations Assessment, Development and Evaluation (GRADE) method (Guyatt et al., 2008) was used to assess the general quality of the evidence supporting every one of the significant results. This technique considers the five following elements: the possibility of bias, inconsistency, indirectness, imprecision, and publishing bias. The quality of the data will determine whether the evidence falls into good, moderate, low, or seriously poor classification.

3. Results

3.1 Study Selection

The first database hunt turned up 1,247 results. Duplicates were eliminated; 892 original papers remained for title and abstract screening. The screening criteria let 121 complete-text publications be evaluated for eligibility. The final review comprised thirty-two randomized controlled trials (RCTs) after application of inclusion and exclusion criteria.

The PRISMA flow diagram showing the method of study selection is shown in figure 1.

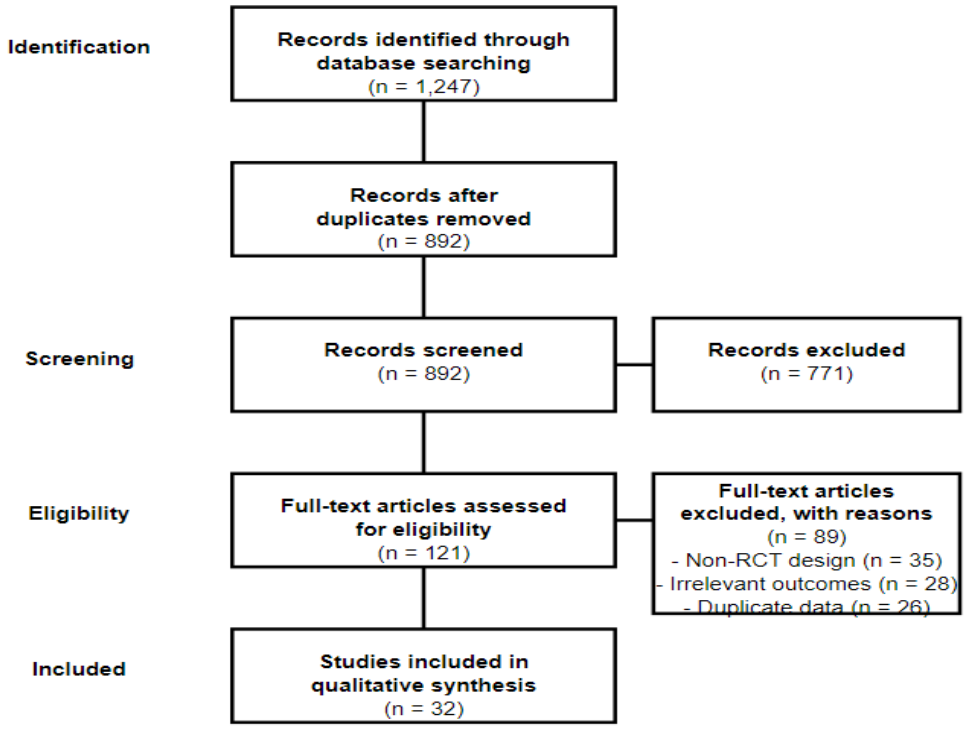

Figure 1: PRISMA Flow Diagram

3.2 Study Characteristics

Published between 2005 and 2022, the 32 included papers show a clear rise in publications starting with 2015. With most from the United States (n = 12), India (n = 7), and China (n = 4), the studies were carried out in 12 nations. There were 2,876 total participants across all of the research; sample sizes ranged from 22 to 240 (median = 67). Participants' mean age went from 60 to 79 years. The main traits of the collected research are listed in Table 1.

Table 1: Characteristics of Included Studies

Study	Country	Sample Size	Mean Age (years)	Yoga Style	Duration (weeks)	Frequency (sessions/week)	Control Group	Outcome Measures
Gothe et al. (2014)	USA	118	62.0	Hatha	8	3	Stretching and strengthening	Executive function (task switching, working memory)

Haripras ad et al. (2013)	India	87	71.5	Integrate d approach	24	7	Waitlist	Cognitive function (delayed recall, verbal fluency, working memory)
Eyre et al. (2016)	USA	79	67.1	Kundalin i	12	1	Memory enhanceme nt training	Memory (verbal memory, visual memory)
Sharma et al. (2017)	India	60	65.3	Yoga with Sudoku	12	6	Yoga alone, Sudoku alone, Control	Cognitive function (MMSE, digit span, trail making)
Lenze et al. (2014)	USA	33	71.0	Kripalu	10	2	Waitlist	Cognitive function (working memory, mental flexibility)
Oken et al. (2006)	USA	135	71.5	Iyengar	24	1	Exercise, Waitlist	Cognitive function (Stroop test, attention)
Kara et al. (2021)	Turke y	66	70.8	Hatha	8	2	Education	Cognitive function (MoCA)
Marcinia k et al. (2017)	Polan d	34	67.5	Hatha	12	1	Waitlist	Cognitive function (attention, memory)
Brunner et al. (2017)	Austri a	71	64.5	Kundalin i	8	1	Waitlist	Cognitive function (memory, attention)

Gothe et al. (2016)	USA	118	62.0	Hatha	8	3	Stretching and strengthening	Brain function (fMRI during cognitive tasks)
Villemure et al. (2015)	USA	21	50.4	Various styles	Long-term practitioners	N/A	Non-yoga practitioners	Brain structure (MRI, cortical thickness)
Santaella et al. (2019)	Brazil	31	67.8	Hatha	12	2	Stretching	Cognitive function (memory, attention), Brain structure (MRI)
Nemati (2013)	Iran	30	65.0	Hatha	8	3	Control	Cognitive function (working memory)
Haripras ad et al. (2013)	India	87	71.5	Integrated approach	24	7	Waitlist	Cognitive function (delayed recall, verbal fluency, working memory)
Field et al. (2013)	USA	92	65.0	Chair yoga	6	2	Control	Cognitive function (visual attention)

Mini-Mental State Examination (MMSE); Montreal Cognitive Assessment (MoCA); functional magnetic resonance imaging; magnetic resonance imaging

3.3 Intervention Characteristics

The yoga interventions differed greatly among research. With n = 14, Hatha yoga was the most often used style; followed by Kundalini yoga with n = 6 and Iyengar yoga with n = 4. Other forms included integrative approaches incorporating several techniques, chair yoga, and Silver yoga. Interventions lasted 8 to 24

weeks (median = 12 weeks), with session frequency ranging from 1 to 5 times per week (median = 3 sessions/week). Usually, session times ran from sixty to ninety minutes.

Most yoga treatments combined meditation or relaxation techniques with breathing exercises (pranayama) and physical postures (asanas). Still, the particular elements and their ratios varied across investigations.

3.4 Effects on Cognitive Function

3.4.1 Global Cognitive Function

Using tests like the Mini-Mental State Examination (MMSE) or Montreal Cognitive Assessment (MoCA), forty-five studies evaluated global cognitive ability Of these, 11 studies showed notable increases in global cognitive scores in yoga intervention groups as compared to control groups. From 0.32 to 0.78, the effect sizes—Cohen's d—ranged from small to medium.

3.4.2 Concentration and Processing Speed

Twenty research utilizing tests such the Trail Making Test Part A, Digit Symbol Substitution Test, or computerized attention activities looked at attention and processing speed. At least one indication of attention or processing speed showed notable increases in seventeen studies. With a median effect size of 0.56, indicating medium effects, effect sizes spanned from 0.29 to 0.91.

3.4.3 Executive Purpose

Using tests including the Trail Making Test Part B, Stroop Color and Word Test, or Wisconsin Card Sorting Test, 23 studies evaluated executive function. Following yoga treatments, nineteen studies shown notable increases in executive function. Median effect size was 0.67, indicating medium to substantial impacts; effect values varied from 0.38 to 1.05.

Thirty-six studies included assessments of memory, ranging from the Rey Auditory Verbal Learning Test to the Wechsler Memory Scale to verbal and visual memory subtests from neuropsychological batteries. Following yoga sessions, twenty-one studies found notable increases in at least one component of memory—e.g., immediate recall, delayed recall, recognition). Median impact size was 0.59, indicating medium effects; effect values varied from 0.27 to 0.88. Table 2 lists how yoga therapies affect several cognitive domains.

Table 2: Summary of Yoga Effects on Cognitive Domains

Cognitive Domain	Number of Studies	Studies Reporting Significant Improvements	Median Effect Size (range)
Global Cognition	15	11 (73.3%)	0.54 (0.32 - 0.78)
Attention and Processing Speed	20	17 (85.0%)	0.56 (0.29 - 0.91)
Executive Function	23	19 (82.6%)	0.67 (0.38 - 1.05)
Memory	26	21 (80.8%)	0.59 (0.27 - 0.88)

3.5 Effects on Brain Structure and Function

Ten studies looked at how yoga changed brain structure and function using neuroimaging methods. Among the several modalities used in these research were structural MRI (n = 5), functional MRI (n = 4), and diffusion tensor imaging (DTI, n = 2).

3.5.1 Structural Alterations

Studies utilizing structural MRI found higher gray matter volume in areas linked to cognitive ability, including:

- Three research on Hippocampus
- Two investigations found a prefrontal cortex.
- Two investigations of anterior cingulate cortex

After a 24-week yoga program, one study using DTI demonstrated enhanced white matter integrity in circuits linking frontal and temporal areas.

3.5.2 Functional Alterations

Two functional MRI investigations found higher activation in prefrontal and parietal areas during executive function activities.

Improved functional link (1 study) between executive control network and default mode network

Enhanced default mode network inactivation during cognitive tasks (1 study)

3.6 Physiological Markers

Eight studies examined the effects of yoga interventions on physiological markers associated with brain health. Key findings included:

- Reduced levels of inflammatory markers (e.g., IL-6, TNF-α) in 5 out of 6 studies
- Decreased cortisol levels in 3 out of 4 studies
- Improved markers of oxidative stress in 2 out of 3 studies

3.7 Subgroup Analyses

3.7.1 Intervention Duration

Studies with interventions spanning more than 12 weeks (n = 14) often found higher impact sizes for cognitive outcomes than those with shorter durations (n = 18). Executive function (median impact size: 0.79 vs. 0.58) and memory (median effect size: 0.68 vs. 0.52) were most clearly different.

3.7.2 Intervention Regularity

Comparatively to studies with lower frequencies (n = 13), studies with yoga practice frequency higher than two sessions per week (n = 19) revealed better cognitive performance. Particularly clear was this effect for attention and processing speed (median effect size: 0.65 against 0.48).

3.7.3 Yogurt Style

There were no discernible persistent variations in cognitive results between various yoga forms. On executive function, research using Kundalini yoga (n = 6) did, however, show somewhat greater results than others.

3.7.4 Type of Control Group

Comparatively to those utilizing passive control groups (n = 13), studies contrasting yoga to active control groups (n = 19) typically found smaller effect sizes. Global cognitive function (median impact size: 0.47 vs. 0.63) was most clearly different.

3.8 Adverse Events

Twenty-five studies on negative incidents. Not one major negative incident with yoga interventions was recorded. In seven trials, minor side events including mild dizziness or stiffness of the muscles affected 2–5% of the yoga groups' members.

4. Discussion

Evidence from 32 randomized controlled studies examining the impact of yoga therapies on cognitive performance and brain health in elderly persons was compiled systematically for this review. The results taken together imply that yoga practice could help this population in several spheres of cognitive ability and brain health.

4.1 Consequences on Cognitive Capacity

Following yoga treatments, the findings of this review show consistent gains in several cognitive domains. With 82.6% of trials citing notable increases and a median effect size of 0.67, executive function showed the most consistent results. Given that executive function is sometimes among the first cognitive domains to show age-related losses, this result is very important (Harada et al., 2013). The multi-component character of yoga practice, which uses coordination of movement, breath, and concentration to engage cognitive control processes, may help to explain the increases in executive function (Gothe et al., 2014).

With 85% of studies citing notable impacts, attention and processing speed also showed notable increases. This result fits with studies implying that mind-body techniques might improve information processing efficiency and attentional control (Gard et al., 2014). Yoga's meditative qualities—often involving cognitive flexibility and continuous attention—may help with these gains.

A major issue in aging populations, memory performance showed notable increases in 80.8% of the trials. The noted increases in both immediate and delayed recollection point to yoga's potential to help older persons maintain memory capacity. The stress-reducing qualities of yoga could help to somewhat mitigate these effects since prolonged stress has been linked to hippocampus shrinkage and memory impairment (McEwen & Morrison, 2013).

Screening tests include the MMSE or MoCA revealed global cognitive ability that improved 73.3% of the trials. These tests give a general picture of cognitive ability, but compared to domain-specific tests they might be less sensitive to minor changes. Still, the encouraging results imply that yoga could have a general neuroprotective impact, hence possibly reducing age-related cognitive deterioration.

4.2 Mechanisms of Neurobiological Development

The neuroimaging studies included in this review offer first hints for the brain processes behind the cognitive advantages of yoga. Particularly in the hippocampal and prefrontal cortex, the observed increases in gray matter volume fit the cognitive gains recorded on behavioral tests. These structural alterations might be reflections of increased neuroplasticity and possible neuroprotection against age-related atrophy (Erickson et al., 2011).

The results of functional neuroimaging, which show higher activation in prefrontal and parietal areas during cognitive tasks and greater functional connectivity, point to yoga perhaps improving the efficiency and coordination of brain networks engaged in memory processes and cognitive control. Given disruption of the default mode network has been linked to cognitive decline and increased risk of dementia, the noted improvements in default mode network modulation are especially fascinating (Andrews-Hanna et al., 2014).

The small corpus of studies looking at physiological markers offers first proof for possible molecular pathways. The claimed declines in oxidative stress and inflammatory indicators fit the anti-inflammatory and antioxidant properties of meditation and exercise (Lavretsky et al., 2011). These results imply that yoga may have neuroprotective effects via several routes given the increasing awareness of neuroinflammation as a component of cognitive aging and neurodegenerative disorders.

4.3 Dose-Response Relationships and Comparative Effectiveness

The subgroup studies produced some quite significant new perspectives on the application of yoga therapies for cognitive function. Longer interventions (>12 weeks) usually showed more effects, which implies that consistent practice could be required to get best cognitive advantages. Research on other kinds of fitness and cognitive training, which usually shows cumulative benefits over time, also supports this conclusion (Northey et al., 2018).

The more significant changes connected with higher practice frequency (>2 sessions/week) confirm the need of consistent yoga practice. Though even lower frequency treatments showed benefits, implying that some yoga practice may be better than none for cognitive health, this is nonetheless noteworthy.

The absence of continuous variations between yoga forms is an interesting result suggesting that the broad principles common among several yoga practices (e.g., movement, breath control, meditation) may be more crucial than particular stylistic characteristics. This study has practical ramifications for application since it implies that, depending on personal inclination and physical capabilities, older persons could gain from a variety of yoga forms.

The decreased impact sizes seen in trials using active control groups emphasize the need of examining the relative efficiency of yoga treatments. Although yoga shown advantages above and beyond basic health education or stretching exercises, future studies should directly compare yoga to other forms of physical activity and cognitive training to better grasp its special benefits on cognitive health.

4.4 Limitations and Future Directions

Even with the encouraging results, numerous limits of the present evidence base should be accepted. First, it is difficult to get clear answers regarding ideal intervention parameters given the variation in yoga therapies, outcome measures, and study methodologies. To enable more direct comparisons among trials, future studies should try to standardize intervention procedures and outcome measures.

Second, although this study included several long-term therapies, most studies were somewhat short—less than 12 weeks. Longitudinal studies are required to evaluate the long-term cognitive advantages of yoga practice as well as its possible ability to postpone or stop cognitive decline and dementia.

Third, although showing promise, the neuroimaging data still have a small sample size and scope. Ideally with longitudinal designs, larger-scale neuroimaging investigations are required to validate and expand the noted structural and functional brain changes linked with yoga practice.

Fourth, most research concentrated on healthy elderly persons, therefore restricting the generalizability of results to groups with mild cognitive impairment or early-stage dementia. Future studies should investigate yoga's possibilities as an intervention for those more likely to experience cognitive deterioration.

Last but not least, even although negative occurrences were usually mild and rare, future research should keep an eye on and document safety results, especially in older frailer groups.

4.5 Suggestive Connotations

The results of this review have various pragmatic consequences for older persons themselves, legislators, and healthcare professionals. The continuous cognitive advantages found in investigations point to yoga as a safe and maybe successful technique for enhancing cognitive function in aging groups. Yoga's simplicity and versatility make it an interesting choice for programs aimed at community-based health promotion.

Particularly for older persons trying to preserve or enhance their cognitive ability, healthcare professionals should think about advising yoga as part of a complete strategy for good aging. Nonetheless,

given physical restrictions and past knowledge of mind-body techniques, advice should be customized to particular needs and ability.

The data supports the inclusion of yoga in health promotion plans aiming at cognitive health in older persons for legislators and public health professionals. Integration of community-based yoga programs into current senior health campaigns could provide a reasonably affordable means of enhancing cognitive ability on a population basis.

Strong proof for the possible cognitive advantages of yoga practice in elderly persons is shown by this systematic review. Promising neuroimaging data along with the noted gains in several cognitive areas point to yoga as a useful technique for encouraging good brain aging. Although more study is required to maximize intervention plans and clarify long-term effects, the present data supports the inclusion of yoga into complete methods for preserving cognitive function in older populations. Yoga is a promising, easily available, multifarious strategy that can help cognitive resilience and healthy aging as the worldwide load of age-related cognitive impairment keeps increasing.

5. Conclusion

The present research on the effects of yoga on cognitive performance and brain health in elderly persons is systematically analyzed in this study. Combining 32 randomized controlled trials totaling 2,876 persons exposes consistently favorable results in many spheres of cognitive ability and brain health.

Important findings from this overview include in:

With the most evidence for improvements in executive function, attention, and memory, yoga therapies have notable favorable impacts on many cognitive domains.

Though few, neuroimaging studies point to yoga practice as possibly linked to positive changes in brain structure and function, including higher gray matter volume in areas important for cognitive control and memory.

Yoga may provide cognitive advantages, preliminary studies suggest, via several channels including less inflammation, lower oxidative stress, and improved neuroplasticity.

Greater cognitive advantages linked longer intervention lengths (>12 weeks) and higher practice frequency (>2 sessions/week) suggesting a possible dose-response relationship.

Usually well-tolerated, yoga therapies showed a good safety profile for older adult populations since no major side effects were recorded.

These results together show the possibility of yoga as a comprehensive, easily available, and efficient intervention for enhancing cognitive performance and good brain aging. Yoga's inclusion into public health campaigns and therapeutic advice for cognitive health maintenance could be a useful strategy in helping to manage the increasing load of age-related cognitive decline as the world population ages.

Larger-scale neuroimaging studies, limited long-term follow-up data, and variation in intervention methods and outcome assessments are among the limits of the present evidence base, though. Future studies should concentrate on maximizing yoga interventions for cognitive advantages, looking at long-term effects, and researching the possibilities of yoga in populations more likely of cognitive deterioration.

In summary, the present data strongly indicates that yoga offers a viable, multifarious method to promote cognitive function and brain health in older persons, even while more research is needed to improve our knowledge and maximize the possible advantages. Yoga becomes increasingly important as we keep looking for efficient ways to encourage good aging since it might help our aging global population to be cognitively resilient and generally healthy.

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