International Journal of Medical and Pharmaceutical Research

Online ISSN-2958-3683 | Print ISSN-2958-3675
Frequency: Bi-Monthly
Available online on: https://ijmpr.in/

Research Article

Effects of Yoga on Physical and Mental Health in the Geriatric Population: A Systematic Review

Anupama Gupta[1], Vikash Kumar Tiwari[2], JJ Tambe[3]

[1] Associate Professor, Department of Physiology, GSVM Medical College, Kanpur, Uttar Pradesh, India.
[2] Associate Professor, Department of Physiology, A.S.M.C, Lakhimpur Kheri, Uttar Pradesh, India.
[3] Specialist C.G.H.S. Kanpur, Uttar Pradesh, India.

Corresponding Author:

JJ Tambe

Specialist C.G.H.S. kanpur, Uttar Pradesh, India.

Received: 11-09-2025
Accepted: 27-09-2025
Available online: 13-10-2025

ABSTRACT

Background: Yoga has emerged as a popular mind-body intervention with potential benefits for physical, cognitive, and psychological health in older adults. While several randomized controlled trials (RCTs) have investigated these effects, there is a need to systematically synthesize evidence to inform clinical practice and program design.

Material and Methods: A systematic review was conducted to identify RCTs evaluating yoga interventions in older adults. A total of 21 studies meeting the inclusion criteria were selected. Data extracted included participant characteristics, intervention details, comparative groups, outcome measures, and results. Studies were categorized based on intervention type, duration, and primary outcomes, and narrative synthesis was performed to summarize the findings.

Results: The included studies encompassed diverse populations of older adults (community-dwelling and residential care) and examined various yoga modalities, including Hatha, Iyengar, Thai, and therapeutic yoga. Yoga interventions ranged from 4 weeks to 12 months, with frequencies of 1–3 sessions per week. Across studies, yoga consistently improved balance, flexibility, functional mobility, and postural stability. Cognitive benefits, including enhanced executive function and memory, were reported in several trials. Psychological outcomes such as depression, stress, and overall wellbeing also improved in most interventions. Attendance and adherence were generally high, and adverse events were rare. Differences in intervention protocols and outcome measures across studies limited quantitative synthesis.

Conclusion: Yoga is a feasible and effective intervention to enhance physical function, cognitive performance, and psychological wellbeing in older adults. Tailored programs considering participant capabilities and consistent methodological designs are recommended to optimize benefits. Further high-quality RCTs with standardized protocols are warranted to confirm long-term efficacy and guide clinical implementation.

Keywords*: Yoga, Geriatric, Physical health, Cognitive function, Psychological wellbeing.*

INTRODUCTION

As the global population ages, maintaining physical, cognitive, and psychological health in older adults has become a critical public health priority. Yoga, a mind-body intervention with roots in ancient traditions, has gained attention for its potential benefits in this demographic. Recent systematic reviews and meta-analyses have provided insights into the effects of yoga on various health outcomes in older adults [1-6].

A systematic review and meta-analysis by Ko et al. (2023) assessed the impact of yoga on physical and psychological outcomes among older adults. The study found that yoga significantly improved balance, flexibility, muscle strength, and

depressive symptoms, though the effects on anxiety and gait were inconclusive due to the heterogeneity of the included studies [4].

In the realm of cognitive health, a systematic review by Giridharan et al. (2024) examined the effects of Kundalini yoga on cognitive function and memory in older adults. The review concluded that Kundalini yoga consistently improved memory performance and executive function, along with significant mood enhancements and increased hippocampal volume, suggesting that yoga may offer neurobiological benefits in addition to cognitive improvements [5].

Furthermore, a systematic review by Loewenthal et al. (2023) investigated the effects of yoga on frailty in older adults. The review indicated that yoga may positively affect frailty markers associated with clinically meaningful outcomes, although it may not offer benefits over active interventions like exercise [6].

Collectively, these studies underscore the potential of yoga as an effective intervention to enhance physical, cognitive, and psychological health in older adults. However, variability in study designs, yoga styles, and outcome measures necessitates further high-quality research to establish standardized protocols and optimize intervention strategies.

The primary objective of the present study was to systematically review and synthesize evidence from randomized controlled trials on the effects of yoga interventions on physiocal and psychological wellbeing in older adults. The study aimed to identify trends in intervention effectiveness, compare outcomes across different yoga modalities, and provide insights for optimizing yoga programs to promote healthy aging.

MATERIAL AND METHODS

Study Design and Protocol: This systematic review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines [7]. The primary aim was to evaluate the effects of yoga interventions on balance, falls, mobility, cognitive function, and psychological health in older adults. A predefined protocol was followed to ensure methodological rigor and reproducibility.

Eligibility Criteria: Studies were included based on the following criteria:

- Population: Community-dwelling or institutionalized older adults aged ≥60 years.
- Intervention: Any structured yoga program, including Hatha, Iyengar, Thai, Silver, or adapted yoga formats.
- Comparators: Active (e.g., stretching, balance training) or inactive (usual care, waitlist, or no intervention) control groups.
- Outcomes: At least one of the following: balance, falls, mobility, flexibility, strength, cognitive function, or psychological wellbeing.
- Study design: Randomized controlled trials (RCTs) or cluster RCTs published in English.

Studies were excluded if they were case reports, non-randomized studies, reviews, or did not report relevant outcomes.

Search Strategy: A comprehensive literature search was performed across PubMed, Scopus, Web of Science, and Google Scholar databases. Keywords included: “yoga,” “older adults,” “elderly,” “balance,” “falls,” “mobility,” “cognitive function,” and “psychological health”. Boolean operators and MeSH terms were used to refine the search. Reference lists of retrieved articles were also screened to identify additional relevant studies.

Study Selection: Titles and abstracts were screened independently by two reviewers. Full texts of potentially eligible studies were retrieved and assessed for inclusion. Discrepancies were resolved through discussion or consultation with a third reviewer. A total of 21 studies met the inclusion criteria and were included in this review.

Data Extraction: Data were extracted independently by two reviewers using a standardized data collection form. Extracted information included: Citation (first author, year), Participant characteristics, Intervention details, Comparative group(s), Outcome measures, and Key results. Any disagreements were resolved through discussion.

Quality Assessment: The methodological quality of included studies was evaluated using the Cochrane Risk of Bias tool for RCTs [8], assessing random sequence generation, allocation concealment, blinding, incomplete outcome data, selective reporting, and other potential biases. Each study was categorized as low, unclear, or high risk of bias.

Data Synthesis: Due to heterogeneity in intervention types, outcome measures, and participant characteristics, a narrative synthesis was performed. Findings were summarized in three thematic tables. Where feasible, trends in intervention effectiveness were highlighted, but no meta-analysis was performed due to methodological variability.

PRISMA Flow Diagram Summary: The initial literature search across PubMed, Scopus, Web of Science, and Google Scholar identified a total of 532 records (18 from other sources). After removing 105 duplicates, 445 articles were screened based on titles and abstracts, and 67 full-text articles were assessed for eligibility. Of these, 46 studies were excluded due to reasons such as non-randomized study design, population not meeting the age criteria, interventions that were not yoga-based, or inadequate reporting of relevant outcomes. Ultimately, 21 studies met all inclusion criteria and were included in

this systematic review. These studies form the basis of the thematic tables and narrative synthesis presented in the results section.

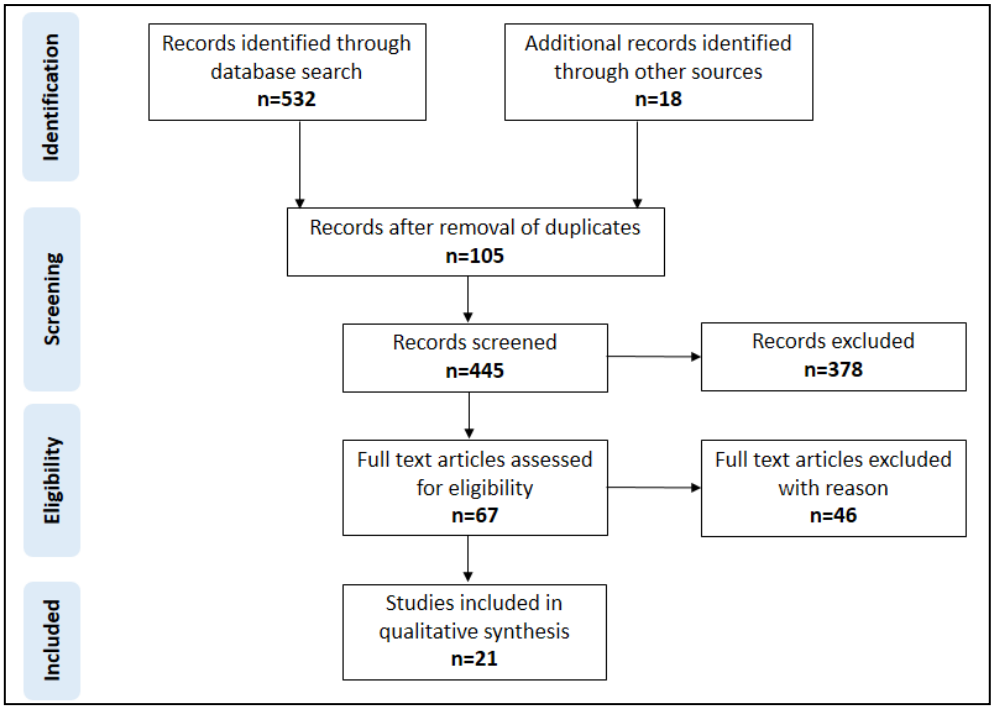

Figure 1: PRISMA Flow Diagram

RESULTS

Yoga interventions in older adults demonstrated positive effects on balance, falls, and mobility. The most recent study by Pandya SP (2019) showed improvements in gait speed, strength, and functional performance, while other studies reported reductions in fall risk and enhanced postural stability compared to Tai Chi, balance training, or usual care (Table 1). Earlier interventions, including Iyengar yoga and Hatha programs, similarly improved balance and mobility outcomes.

Regarding psychological health and wellbeing, recent studies (Raja & Balaji, 2024; Snigdha et al., 2024) reported significant improvements in stress, healthy ageing biomarkers, self-perceived health, and flexibility, with earlier studies also showing enhanced mood and mental health following short-term yoga programs (Table 2).

Yoga interventions also positively influenced functional fitness and, to some extent, cognitive outcomes. Bucht & Donath (2019) reported improved strength, flexibility, and balance with sauna-yoga, while other studies demonstrated gains in executive function, mobility, and sleep quality compared to stretching exercises or usual activity (Table 3). Overall, the evidence supports yoga as an effective intervention to enhance physical, cognitive, and psychological health in older adults.

Table 1: Physical Health Outcomes

Citation	Participants	Intervention details	Comparative group(s)	Outcome measures	Results
Pandya SP, 2019 [9]	Older women with sarcopenia	Yoga Education Program, multicity, long-term follow-up	Waitlist/baseline	Gait speed, strength, functional performance	Improvements in gait speed, muscular strength, functional performance
Tew GA et al, 2017 [10]	Physically inactive older adults	Adapted yoga	Waitlist control	Physical function tests, HRQoL, wellbeing	Improvements in some physical function and wellbeing
Noradechanunt C et al, 2017 [11]	Community-dwelling older adults	Thai Yoga 12-week program	Control	Chair-stand, arm-curl, sit-and-reach, 6-min walk, SF-36	Significant improvements in multiple physical-function tests
Hamrick I et al, 2017 [12]	Rural older adults	Hatha yoga 16 sessions over 8 weeks	Relaxation-exercise only	Falls, balance, gait tests	48% reduction in self-reported falls; improved balance

Nick N et al, 2016 [13]	40 older adults	Yoga, 2×/week for 8 weeks	Control (no intervention)	Fear of falling (MFES), Balance (BBS)	Significant improvements in MFES and BBS
Saravanakumar P et al, 2014 [14]	Residential care residents	Tai Chi & yoga	Usual care/control	Balance, falls, physical function	Potential improvements in balance; reduced falls risk
Ni M et al, 2014 [15]	Older fallers (N≈39)	12-week specially-designed yoga	Tai Chi, balance training	Postural stability, balance, fall-risk	Yoga comparable to Tai Chi and balance training
Tiedemann A et al, 2013 [16]	54 community-dwelling older adults	12-week Iyengar yoga, 2×/week + fall prevention booklet	Control: fall prevention booklet only	Standing balance, sit-to-stand, 4-m walk, Falls Efficacy Scale	Improved balance, mobility; average attendance 83%; no adverse events
Wang DS, 2010 [17]	18 older adults	Yoga, 1 hr, 2×/week, 4 weeks	Socialization group	Lower body strength, flexibility, depression, morale	Improvements observed in both groups; not statistically significant

Table 2: Psychological Health, Stress, and Wellbeing Outcomes

Citation	Participants	Intervention details	Comparative group(s)	Outcome measures	Results
Raja SC, Balaji P, 2024 [18]	Geriatric population	Selected yoga practices	None	Balance and flexibility	Significant improvements in balance and flexibility (includes functional aspects of wellbeing)
Snigdha A, et al, 2024 [19]	Older adults	Yoga-based lifestyle intervention	Waitlist control group	Healthy ageing outcomes	Significant improvements in various healthy ageing biomarkers
Flores H, et al, 2024 [20]	Older adults (50–71 years)	Therapeutic yoga	None	Stress levels	Significant reduction in stress levels post-intervention
Nguyen HM, et al, 2024 [21]	90 elderly individuals (60–70 years)	Yoga practice	Control group	Self-perceived health (SF-36)	Yoga group reported better self-perceived health scores than control group
Andharia C, 2023 [22]	100 geriatric patients (50 male, 50 female)	Yogic intervention at Shanku's Natural Health Centre	None	Physical and mental health (assessed via Mental Health checklist)	Significant improvements in physical and mental health post-intervention
Borotikar S, et al, 2023 [23]	Retired men	Integrated yoga practice	None	Psychological well-being	Significant improvement in psychological well-being
Bonura KB et al, 2014 [24]	98 community-dwelling older adults, ~65–92 years	6-week Hatha yoga program	Wait-list / usual-activity control	Psychological health measures	Yoga group showed improvements in psychological health over 6 weeks

Table 3: Cognitive Function and Functional Fitness Outcomes

Citation	Participants	Intervention details	Comparative group(s)	Outcome measures	Results
Bucht H & Donath	Healthy older adults (community-dwelling); RCT	**Sauna-yoga** program (supervised sessions combining sauna	Two-armed RCT: Sauna-yoga vs control	Flexibility, muscular strength, and balance tests	Sauna-yoga produced superior

L, 2019. [25]	sample reported in abstract (see paper for exact N).	exposure with yoga sequences) — protocol described in full text (frequency/duration in methods).	(non-sauna / standard exercise or no intervention — see full text for precise comparator).	(standard functional tests).	improvements in flexibility, strength and balance compared with comparator; authors report statistically significant between-group differences favoring sauna-yoga
Gothe NP & McAuley, 2016 [26]	Sedentary, community-dwelling older adults	Regular yoga classes	Stretching–strengthening exercise program (active comparator)	Functional-fitness outcomes (strength, flexibility, balance, mobility tests)	Yoga as effective as stretching–strengthening exercises; no superiority on primary functional measures
Gothe NP et al, 2014 [27]	118 community-dwelling older adults (mean age ≈62)	8-week Hatha yoga: 1-hour classes, 3×/week	Stretching–strengthening control group	Executive function tests (task-switching, n-back, working memory/attention)	Improvements on select executive-function measures relative to control
Chen KM et al, 2009 [28]	Older adults in community/senior centers	Silver Yoga program, 6 months, group classes	Usual activity / control clusters	Sleep quality, depression, health status	Significant improvements in sleep quality, reduced depressive symptoms, better self-rated health
Oken BS et al, 2006 [29]	Healthy seniors	6-month yoga classes	Exercise group and wait-list control	Cognitive tests, fatigue, mood scales, quality-of-life measures	No significant differences in cognitive function; limited/mixed effects on QOL measures

DISCUSSION

This systematic review aimed to evaluate the effects of yoga interventions on balance, mobility, cognitive function, and psychological wellbeing in older adults. The findings suggest that yoga may offer benefits across these domains, although variability in study designs and outcome measures necessitates cautious interpretation.

Balance and Mobility: Yoga interventions demonstrated improvements in balance and mobility among older adults. A systematic review by Youkhana et al. (2016) reported that yoga resulted in small improvements in balance and medium improvements in physical mobility in individuals aged 60 years and older. However, the authors noted that further research is required to determine whether yoga-related improvements in balance and mobility translate to prevention of falls in older people [30].

Similarly, a study by Verzili et al. (2023) found that yoga interventions had a positive effect on balance function in older adults, though the heterogeneity of methods and outcomes across studies limited the ability to draw definitive conclusions [31].

Cognitive Function: The impact of yoga on cognitive function in older adults remains an area of active investigation. A meta-analysis by Suk et al. (2025) evaluated the effects of mind-body exercises, including yoga, on cognitive performance in older adults. The study found that mind-body exercises can improve cognitive performance, depressive status, and balance, as well as increase αβ1–42 protein levels and decrease Tau protein levels in middle-aged and older adults with mild cognitive impairment [32].

Furthermore, a study by Giridharan et al. (2024) examined the effects of Kundalini yoga on cognitive function and memory in older adults. The review concluded that Kundalini yoga consistently improved memory performance and executive function, along with significant mood enhancements and increased hippocampal volume, suggesting that yoga may offer neurobiological benefits in addition to cognitive improvements [5].

Psychological Wellbeing: Yoga interventions have been associated with improvements in psychological wellbeing among older adults. A study by Verzili et al. (2023) indicated that yoga may reduce depression with small to medium effect sizes, though it was not possible to state that yoga reduces anxiety and stress in the elderly or improves cognition due to the heterogeneity of methods and outcomes across studies [31].
Additionally, a study by Loewenthal et al. (2023) investigated the effects of yoga on frailty in older adults. The review indicated that yoga may positively affect frailty markers associated with clinically meaningful outcomes, although it may not offer benefits over active interventions like exercise [33].

Frailty and Functional Fitness: Yoga has shown potential in improving frailty markers and functional fitness in older adults. A systematic review by Loewenthal et al. (2023) found that yoga may affect frailty markers that are associated with clinically meaningful outcomes in older adult populations. However, the review noted that yoga may not offer benefits over active interventions like exercise [33].
Moreover, a study by Snigdha et al. (2024) reported that a yoga-based lifestyle intervention was protective against frailty, with a significant reduction in frailty risk among participants [19].

Implementation and Practical Considerations: Implementing yoga interventions for older adults requires careful consideration of various factors. Rojas et al. (2025) discussed strategies for empowering older adults through yoga, emphasizing the importance of tailored approaches to meet the unique needs of this population [34]. Additionally, a study by Verzili et al. (2023) highlighted the challenges and opportunities in implementing yoga programs for older adults, including the need for standardized protocols and trained instructors [31].

Limitations: Despite the comprehensive nature of this systematic review, several limitations should be acknowledged. First, there was considerable heterogeneity among the included studies in terms of yoga styles, intervention duration, session frequency, and outcome measures, which limits the ability to directly compare results. Second, many studies had small sample sizes and were conducted in specific geographic regions, potentially limiting the generalizability of the findings. Third, the majority of studies relied on self-reported outcomes for psychological and functional measures, which may introduce reporting bias. Finally, the absence of long-term follow-up in most trials prevents conclusions regarding the sustainability of the observed benefits over time. These limitations underscore the need for larger, multicentric, high-quality randomized controlled trials with standardized interventions and objective outcome assessments.

CONCLUSION

The evidence suggests that yoga interventions may offer benefits in improving balance, mobility, cognitive function, psychological wellbeing, and frailty markers in older adults. However, variability in study designs and outcome measures underscores the need for further high-quality research to establish standardized protocols and optimize intervention strategies.

REFERENCES

1. Wang F, Yang W, Wang C, Wang K, Yu Z, Ke D, et al. Yoga and chronic diseases: an umbrella review of systematic reviews and meta-analyses. Med Rev (2021). 2025 Jan 6;5(3):244-255. doi: 10.1515/mr-2024-0078.
2. Wieland LS, Cramer H, Lauche R, Verstappen A, Parker EA, Pilkington K. Evidence on yoga for health: A bibliometric analysis of systematic reviews. Complement Ther Med. 2021 Aug;60:102746. doi: 10.1016/j.ctim.2021.102746.
3. Ghai S, Ghai I. Yoga Nidra for cardiovascular health: a systematic review and meta-analysis of between- and within-group effects. Complement Ther Med. 2025 Oct;93:103231. doi: 10.1016/j.ctim.2025.103231.
4. Ko KY, Kwok ZCM, Chan HY. Effects of yoga on physical and psychological health among community-dwelling older adults: A systematic review and meta-analysis. Int J Older People Nurs. 2023 Sep;18(5):e12562. doi: 10.1111/opn.12562.
5. Giridharan S, Al-Mansoori A, Al-Mansoori A, et al. The impact of Kundalini yoga on cognitive function and memory: A systematic review of randomized controlled trials. Cureus. 2024;16(6):e63161. doi:10.7759/cureus.63161.
6. Loewenthal J, Innes KE, Mitzner M, Mita C, Orkaby AR. Effect of Yoga on Frailty in Older Adults : A Systematic Review. Ann Intern Med. 2023 Apr;176(4):524-535. doi: 10.7326/M22-2553.
7. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ. 2021 Mar 29;372:n71. doi: 10.1136/bmj.n71
8. Higgins JP, Altman DG, Gøtzsche PC, Jüni P, Moher D, Oxman AD,et al; Cochrane Bias Methods Group; Cochrane Statistical Methods Group. The Cochrane Collaboration's tool for assessing risk of bias in randomised trials. BMJ. 2011 Oct 18;343:d5928. doi: 10.1136/bmj.d5928.
9. Pandya SP. Yoga education program for older women diagnosed with sarcopenia: A multicity 10-year follow-up experiment. J Women Aging. 2019 Sep-Oct;31(5):446-469. doi: 10.1080/08952841.2018.1510245.

10. Tew GA, Howsam J, Hardy M, Bissell L. Adapted yoga to improve physical function and health-related quality of life in physically-inactive older adults: a randomised controlled pilot trial. BMC Geriatr. 2017 Jun 23;17(1):131. doi: 10.1186/s12877-017-0520-6.
11. Noradechanunt C, Worsley A, Groeller H. Thai Yoga improves physical function and well-being in older adults: A randomised controlled trial. J Sci Med Sport. 2017 May;20(5):494-501. doi: 10.1016/j.jsams.2016.10.007.
12. Hamrick I, Mross P, Christopher N, Smith PD. Yoga's effect on falls in rural, older adults. Complement Ther Med. 2017 Dec;35:57-63. doi: 10.1016/j.ctim.2017.09.007.
13. Nick N, Petramfar P, Ghodsbin F, Keshavarzi S, Jahanbin I. The Effect of Yoga on Balance and Fear of Falling in Older Adults. PM R. 2016 Feb;8(2):145-51. doi: 10.1016/j.pmrj.2015.06.442.
14. Saravanakumar P, Higgins IJ, van der Riet PJ, Marquez J, Sibbritt D. The influence of tai chi and yoga on balance and falls in a residential care setting: A randomised controlled trial. Contemp Nurse. 2014;48(1):76-87. doi: 10.1080/10376178.2014.11081929.
15. Ni M, Mooney K, Richards L, Balachandran A, Sun M, Harriell K, Potiaumpai M, Signorile JF. Comparative impacts of Tai Chi, balance training, and a specially-designed yoga program on balance in older fallers. Arch Phys Med Rehabil. 2014 Sep;95(9):1620-1628.e30. doi: 10.1016/j.apmr.2014.04.022.
16. Tiedemann A, O'Rourke S, Sesto R, Sherrington C. A 12-week Iyengar yoga program improved balance and mobility in older community-dwelling people: a pilot randomized controlled trial. J Gerontol A Biol Sci Med Sci. 2013 Sep;68(9):1068-75. doi: 10.1093/gerona/glt087.
17. Wang DS. Feasibility of a yoga intervention for enhancing the mental well-being and physical functioning of older adults living in the community. Act Adapt Aging. 2010;34(2):85–97. doi:10.1080/01924781003773559
18. Raja SC, Balaji P. Impact of selected yoga practices on balance and flexibility among geriatric population. Journal of Advanced Sports and Physical Education. 2024;7(5):91-8.
19. Snigdha A, Majumdar V, Manjunath NK, Jose A. Yoga-based lifestyle intervention for healthy ageing in older adults: a two-armed, waitlist randomized controlled trial with multiple primary outcomes. Geroscience. 2024 Dec;46(6):6039-6054. doi: 10.1007/s11357-024-01149-5
20. Flores H, Flores G, Anchante P. Benefits of therapeutic Yoga in reducing stress in the elderly. J. Electrical Systems. 2024;20(4s):1322-9. Available from: https://pdfs.semanticscholar.org/0b1e/82021d1753d72741febc4c0b93e10aef455c.pdf
21. Nguyen HM, Ngo TTN, Nguyen TT. Assessment of the effects of yoga on self-perceived health of elderly. Ann Appl Sport Sci. 2024;12(1). doi:10.61186/aassjournal.1318
22. Andharia C. Effectiveness of yogic intervention on physical and mental health among geriatric patients. Vidya - A Journal of Gujarat University. 2023;2(1):111–116. doi:10.47413/vidya.v2i1.149
23. Borotikar S, Tillu G, Lavalekar A, Nagarkar A. Effect of yoga on psychological well-being in men: a nonrandomized study. GeroPsych. 2023;36(2):75–83. doi:10.1024/1662-9647/a000308.
24. Bonura KB, Tenenbaum G. Effects of yoga on psychological health in older adults. J Phys Act Health. 2014 Sep;11(7):1334-41. doi: 10.1123/jpah.2012-0365.
25. Bucht H, Donath L. Sauna Yoga Superiorly Improves Flexibility, Strength, and Balance: A Two-Armed Randomized Controlled Trial in Healthy Older Adults. Int J Environ Res Public Health. 2019 Oct 2;16(19):3721. doi: 10.3390/ijerph16193721.
26. Gothe NP, McAuley E. Yoga Is as Good as Stretching-Strengthening Exercises in Improving Functional Fitness Outcomes: Results From a Randomized Controlled Trial. J Gerontol A Biol Sci Med Sci. 2016 Mar;71(3):406-11. doi: 10.1093/gerona/glv127.
27. Gothe NP, Kramer AF, McAuley E. The effects of an 8-week Hatha yoga intervention on executive function in older adults. J Gerontol A Biol Sci Med Sci. 2014;69(9):1109–1116. doi:10.1093/gerona/glu095.
28. Chen KM, Chen MH, Chao HC, Hung HM, Lin HS, Li CH. Sleep quality, depression state, and health status of older adults after silver yoga exercises: cluster randomized trial. Int J Nurs Stud. 2009 Feb;46(2):154-63. doi: 10.1016/j.ijnurstu.2008.09.005.
29. Oken BS, Zajdel D, Kishiyama S, Flegal K, Dehen C, Haas M, Kraemer DF, Lawrence J, Leyva J. Randomized, controlled, six-month trial of yoga in healthy seniors: effects on cognition and quality of life. Altern Ther Health Med. 2006 Jan-Feb;12(1):40-7.
30. Youkhana S, Dean CM, Wolff M, Sherrington C, Tiedemann A. Yoga-based exercise improves balance and mobility in people aged 60 and over: a systematic review and meta-analysis. Age Ageing. 2016;45(1):21–29. doi:10.1093/ageing/afv175.
31. Verzili B, Valério de Arruda M, Herrmann F, Reyes MB, Galduróz RF. A systematic review with meta-analysis of Yoga's contributions to neuropsychiatric aspects of aging. Behav Brain Res. 2023 Oct 2;454:114636. doi: 10.1016/j.bbr.2023.114636.
32. Suk JW, Kim K, Kim JU. A Meta-Analysis of Studies of the Effect of Mind Body Exercise on Various Domains of Cognitive Function in Older People with or Without Mild Cognitive Impairment. J Evid Based Integr Med. 2025 Jan-Dec; 30:2515690X251363709. doi: 10.1177/2515690X251363709.
33. Loewenthal J, Innes KE, Mitzner M, Mita C, Orkaby AR. Effect of Yoga on Frailty in Older Adults: A Systematic Review. Ann Intern Med. 2023 Apr;176(4):524-535. doi: 10.7326/M22-2553.
34. Rojas AS. Empowering older adults through yoga: Strategies for effective instruction☆. J Bodyw Mov Ther. 2025 Jun;42:854-861. doi: 10.1016/j.jbmt.2025.02.015.