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Using Tai Chi and Qigong to Treat Cardiovascular Disease: An Application of Artificial Intelligence to Traditional Chinese Medicine

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ABSTRACT: Objective: To systematically summarize and synthesize the evidence from 20 key studies examining the therapeutic effects of Tai Chi and Qigong on cardiovascular disease (CVD) and its major risk factors, using artificial intelligence (Grok) as an assistive tool for literature analysis, while maintaining methodological consistency with prior reviews on other conditions.

Methods: Twenty representative studies (systematic reviews, meta-analyses, randomized controlled trials, and controlled clinical trials) published between 2007 and 2025 were retrieved from PubMed. Each study was analyzed and summarized by the artificial intelligence model Grok with respect to study design, participant characteristics, intervention protocols, primary and secondary outcomes (with effect sizes when available), proposed physiological and psychological mechanisms, strengths, limitations, and clinical recommendations.

Results: The aggregated evidence demonstrates that Tai Chi and Qigong, practiced regularly (typically 2–5 sessions/week for 8 weeks to 1 year), consistently produce clinically meaningful improvements across multiple CVD-relevant domains. Notable effects include reductions in systolic blood pressure (up to −12.47 mmHg), diastolic blood pressure (up to

−6.46 mmHg), total cholesterol, anxiety (SMD up to −2.13), and depression (SMD up to −0.86); increases in exercise capacity (6-minute walk test SMD up to 1.30; aerobic endurance SMD up to 1.12), quality of life (Hedges' g up to 0.96), and left ventricular ejection fraction; and long-term lowering of cardiovascular event rates in high-risk populations. Interventions were remarkably safe, with minimal adverse events reported across thousands of participants. Proposed mechanisms encompass improved endothelial function, autonomic nervous system balance, reduced systemic inflammation, enhanced cardiopulmonary efficiency, and stress-hormone modulation.

Conclusions: Tai Chi and Qigong are safe, low-cost, and effective mind-body interventions that can serve as valuable adjuncts to standard cardiovascular care and cardiac rehabilitation programs. They offer particular benefit for patients who are elderly, deconditioned, or intolerant of conventional aerobic exercise. Despite consistent positive signals, current evidence is limited by small sample sizes, study heterogeneity, and relatively short follow-up periods. Large-scale, long-term, multicenter randomized controlled trials with standardized protocols and hard clinical endpoints are still needed to definitively establish their role in contemporary CVD management.

Keywords: *Tai Chi, Qigong, cardiovascular disease, hypertension, cardiac rehabilitation, blood pressure, quality of life, mind-body intervention, meta-analysis, traditional Chinese medicine*

Introduction

Tai chi and qigong are both forms of traditional Chinese medicine (TCM). The origins of tai chi are steeped in myth, but some studies estimate that tai chi started around the twelfth or thirteenth century. Qigong is much older, going back several thousand years. Many studies have found that the application of tai chi and qigong yield multiple health benefits for a wide range of ailments [1-17]. Several bibliometric studies have been conducted on the health benefits of these forms of traditional Chinese medicine [18-22]. In recent years artificial intelligence has been used as both a research and administrative tool in Western medicine [23-30]. The

present study utilizes artificial intelligence to summarize studies where tai chi and qigong have been used to treat cardiovascular disease.

Tai Chi and Qigong, ancient Chinese mind-body practices, have gained attention for their potential in managing cardiovascular disease (CVD), a leading global cause of morbidity and mortality. These low-impact exercises combine slow movements, breathing, and meditation to promote physical and psychological health. This review synthesizes evidence from 20 studies, including systematic reviews, meta-analyses, and trials, on their effects on CVD treatment, risk factors, and well-being. Building on prior summaries for conditions like osteoarthritis and hypertension, it highlights aggregated findings, mechanisms, and recommendations to guide clinical and enthusiast applications.

Methodology

Studies were selected from the PubMed database. Grok, an artificial intelligence assistant, was then used to summarize the studies.

Study 1: Cheng et al. (2020) [31]

Study Design: Narrative review aggregating research on Tai Chi's role in cardiac rehabilitation (CR) for cardiovascular disease (CVD).

Participant Details: Not specified in available data; focused on general CVD patients across reviewed studies.

Intervention Protocols: Tai Chi as exercise therapy; specific duration, frequency, or style not detailed.

Key Findings with Statistical Data: Discussed improvements in exercise capacity, CVD risk factors, and psychological outcomes; no specific stats (e.g., SMD, p-values, CI) provided.

Potential Mechanisms for Medical Professionals: May involve enhanced cardiovascular function through improved autonomic regulation and reduced inflammation, though not explicitly detailed.

Benefits for Tai Chi/Qigong Enthusiasts: Promotes Qi flow and internal harmony, potentially aiding energy balance in CR.

Strengths: Highlights research gaps and mechanisms in integrative medicine context.

Limitations: Lacks participant specifics, intervention details, and quantitative data; small-scale studies noted.

Clinical Recommendations: Consider Tai Chi as adjunctive CR therapy; more rigorous trials needed for evidence-based integration.

Study 2: Dalusung-Angosta (2011) [32]

Study Design: Systematic review of studies on Tai Chi for coronary heart disease (CHD).

Participant Details: Not specified; included patients at risk or with existing CHD.

Intervention Protocols: Tai Chi exercise; duration, frequency, or type not detailed.

Key Findings with Statistical Data: Tai Chi improved serum lipids, blood pressure, and heart rate; no specific stats (e.g., SMD, p-values, CI) available.

Potential Mechanisms for Medical Professionals: Likely reduces CHD progression via cardiovascular risk factor modulation and stress reduction.

Benefits for Tai Chi/Qigong Enthusiasts: Enhances Qi circulation, fostering mind-body balance for heart health.

Strengths: Emphasizes safety and alternative exercise role.

Limitations: Lacks details on participants, interventions, and stats; potential publication bias.

Clinical Recommendations: Prescribe Tai Chi as safe adjunct for CHD prevention/reversal; suitable for nurse practitioners.

Study 3: Danilov et al. (2025) [33]

Study Design: Narrative review of Tai Chi and Qigong for CVD prevention and management.

Participant Details: Not specified; included patients with coronary artery disease, heart failure, hypertension, and CVD risks.

Intervention Protocols: Tai Chi/Qigong involving movement and meditation; duration/frequency not detailed.

Key Findings with Statistical Data: Improved quality of life and risk factors (e.g., hypertension, waist circumference); no specific stats provided.

Potential Mechanisms for Medical Professionals: Lowers CVD risk via meditative and movement-based stress reduction and physiological adaptations.

Benefits for Tai Chi/Qigong Enthusiasts: Cultivates Qi through gentle flows, aiding internal energy for cardiovascular harmony.

Strengths: Highlights low-cost, modifiable nature with few adverse effects.

Limitations: Small samples, lack of randomization, inadequate controls in reviewed studies.

Clinical Recommendations: Use as adjunct for patients avoiding aerobic exercise; more studies needed.

Study 4: Hartley et al. (2014) [34]

Study Design: Cochrane systematic review of RCTs on Tai Chi for primary CVD prevention.

Participant Details: 1520 participants (healthy adults, elderly at fall risk, borderline/hypertensive individuals); age/sex not uniformly detailed.

Intervention Protocols: Tai Chi lasting ≥3 months; varied styles, durations/frequencies across trials.

Key Findings with Statistical Data: Inconsistent blood pressure reductions (SBP: -22.0 mmHg [95% CI -26.3 to -17.7] in some; DBP: -12.2 mmHg [95% CI -15.8 to -

8.7]); lipid improvements in some (total cholesterol: -1.30 mmol/L [95% CI -1.57 to -1.03]); high heterogeneity (I^2 >75%); no mortality data.

Potential Mechanisms for Medical Professionals: Combines exercise and stress reduction to influence CVD determinants like hypertension.

Benefits for Tai Chi/Qigong Enthusiasts: Builds Qi reserves, promoting preventive vitality and balance.

Strengths: Comprehensive search, RCT focus, heterogeneity assessment.

Limitations: Small samples, short follow-up, bias risks, no long-term outcomes.

Clinical Recommendations: Insufficient evidence for routine use; await ongoing trials for primary prevention.

Study 5: Lee et al. (2007) [35]

Study Design: Systematic review on Tai Chi for CVD and risk factors.

Participant Details: Not specified in available data.

Intervention Protocols: Tai Chi exercise; details unavailable.

Key Findings with Statistical Data: Potential benefits noted; no specific stats provided.

Potential Mechanisms for Medical Professionals: May improve cardiovascular function via autonomic and endothelial pathways.

Benefits for Tai Chi/Qigong Enthusiasts: Supports Qi harmonization for heart-related risks.

Strengths: Early synthesis of evidence.

Limitations: Insufficient details on all aspects; likely small studies.

Clinical Recommendations: Explore as adjunct; need better trials.

Study 6: Liang et al. (2020) [36]

Study Design: Meta-analysis of RCTs on Tai Chi for essential hypertension (EH).

Participant Details: Adults with EH; total number, age/sex not specified.

Intervention Protocols: Tai Chi exercise; duration/frequency not detailed.

Key Findings with Statistical Data: Reduced SBP (WMD -12.47 [95% CI -16.00 to -8.94], $p<0.001$); DBP (WMD -6.46 [95% CI -8.28 to -4.64], $p<0.001$); improved QoL (SMD 0.62 [95% CI 0.35 to 0.90], $p<0.001$); lipids (total cholesterol WMD -0.49 [95% CI -0.62 to -0.37], $p<0.001$).

Potential Mechanisms for Medical Professionals: Lowers blood pressure via vascular relaxation and metabolic improvements.

Benefits for Tai Chi/Qigong Enthusiasts: Enhances Qi flow, reducing hypertension-related imbalances.

Strengths: Strong short-term evidence from RCTs.

Limitations: Needs long-term adherence studies.

Clinical Recommendations: Recommend for EH management to improve QoL and risks.

Study 7: Liu et al. (2018) [37]

Study Design: Systematic review and meta-analysis of controlled trials on Tai Chi-based CR for coronary heart disease (CHD).

Participant Details: CHD patients; total number, age/sex not specified.

Intervention Protocols: Tai Chi in CR; details not provided.

Key Findings with Statistical Data: Improved aerobic endurance (SMD 1.12 [95% CI 0.58-1.66], $p<0.001$); reduced anxiety (SMD 9.28 [95% CI 17.46-1.10], $p=0.03$); depression (SMD 9.42 [95% CI 13.59-5.26], $p<0.001$); better QoL (SMD 0.73 [95% CI 0.39-1.08], $p<0.001$).

Potential Mechanisms for Medical Professionals: Enhances psychosocial well-being via mind-body integration.

Benefits for Tai Chi/Qigong Enthusiasts: Cultivates Qi for emotional resilience in CHD.

Strengths: Includes Chinese/English studies; cost-effective focus.

Limitations: Small number of studies, heterogeneity.

Clinical Recommendations: Integrate into CR for endurance and well-being.

Study 8: Mori et al. (2020) [38]

Study Design: Non-randomized controlled study on Tai Chi Yuttari-exercise for arteriosclerosis and function in older adults.

Participant Details: 89 participants (45 intervention, 44 control); community-dwelling older people; age/sex not specified.

Intervention Protocols: Tai Chi Yuttari classes for 1 year; suggested ≥3x/week.

Key Findings with Statistical Data: Improved CAVI (8.44 to 8.20 at 6 months, p not specified); better functional reach, gait speed, timed up-and-go ($p<0.05$ at 6 months, maintained at 1 year).

Potential Mechanisms for Medical Professionals: Reduces arteriosclerosis via improved vascular compliance.

Benefits for Tai Chi/Qigong Enthusiasts: Gentle Qi-building for aging vitality.

Strengths: 1-year follow-up with controls.

Limitations: Non-randomized; lacks stats details.

Clinical Recommendations: Recommend ≥3x/week for older adults' vascular health.

Study 9: Nery et al. (2014) [39]

Study Design: Systematic review of RCTs on Tai Chi Chuan for CR in coronary artery disease (CAD).

Participant Details: Stable CAD patients; numbers/age/sex not specified.

Intervention Protocols: Tai Chi vs. structured exercise/counseling; 2-12 months follow-up.

Key Findings with Statistical Data: Preliminary benefits as adjunct; no specific stats.

Potential Mechanisms for Medical Professionals: Supports cardiac function through gentle aerobics.

Benefits for Tai Chi/Qigong Enthusiasts: Harmonizes Qi for CAD stability.

Strengths: Focus on unconventional CR.

Limitations: Small samples, methodological issues.

Clinical Recommendations: Use as adjunct in stable CAD; more RCTs needed.

Study 10: Ng et al. (2012) [40]

Study Design: Systematic review of controlled trials (5 RCTs, 4 non-RCTs) on Tai Chi for heart disease.

Participant Details: Patients with CHF (3 studies) or CHD (6 studies); totals/age/sex not specified.

Intervention Protocols: Tai Chi exercise; details not provided.

Key Findings with Statistical Data: Favorable effects on heart disease; no specific stats.

Potential Mechanisms for Medical Professionals: Improves tolerance in limited patients.

Benefits for Tai Chi/Qigong Enthusiasts: Builds Qi for low-tolerance heart conditions.

Strengths: Comprehensive database search.

Limitations: Lacks details; small studies.

Clinical Recommendations: Adjunct for CHF/CHD rehab.

Study 11: Smith (2019) [41]

Study Design: Commentary on Tai Chi as nursing intervention for hypertension.

Participant Details: Adults with hypertension; details unavailable.

Intervention Protocols: Tai Chi exercise; not specified.

Key Findings with Statistical Data: Reduces CVD risks and improves well-being; no stats.

Potential Mechanisms for Medical Professionals: Psychological pathways for hypertension control.

Benefits for Tai Chi/Qigong Enthusiasts: Qi cultivation for psychosocial balance.

Strengths: Nursing perspective.

Limitations: Insufficient data.

Clinical Recommendations: Adjunct for hypertension management.

Study 12: Taylor-Piliae & Finley (2020) [42]

Study Design: Systematic review and meta-analysis of trials on Tai Chi for chronic heart failure (CHF).

Participant Details: 229 participants (mean age 68, 28% women, ejection fraction 37%).

Intervention Protocols: Tai Chi exercise; details not specified.

Key Findings with Statistical Data: Improved exercise capacity (Hedges' $g=0.353$, $p=0.026$, $I^2=32.72\%$); QoL ($g=0.617$, $p<0.001$, $I^2=0\%$); depression ($g=0.627$, $p<0.001$, $I^2=0\%$); BNP ($g=0.333$, $p=0.016$, $I^2=0\%$).

Potential Mechanisms for Medical Professionals: Reduces natriuretic peptides via cardiac unloading.

Benefits for Tai Chi/Qigong Enthusiasts: Qi enhancement for heart failure resilience.

Strengths: Meta-analysis of key outcomes.

Limitations: Needs larger, rigorous studies.

Clinical Recommendations: Integrate into CHF rehab programs.

Study 13: Robins et al. (2016) [43]

Study Design: RCT with wait-list control on Tai Chi for CVD risk in women.

Participant Details: 63 women (aged 35-50) at CVD risk.

Intervention Protocols: 8-week Tai Chi; frequency not specified.

Key Findings with Statistical Data: Reduced fatigue (∂=9.38, p=0.001); cytokines (e.g., IFN-γ ∂=149.90, p=0.002 at 2 months); increased mindfulness (∂=0.54, p=0.021).

Potential Mechanisms for Medical Professionals: Down-regulates proinflammatory cytokines.

Benefits for Tai Chi/Qigong Enthusiasts: Qi flow reduces inflammation-related stress.

Strengths: Community-based, follow-up data.

Limitations: Small sample, women-only.

Clinical Recommendations: For early CVD risk reduction in women.

Study 14: Sun et al. (2019) [44]

Study Design: Long-term follow-up study (2007-2012) on Tai Chi for obese adults.

Participant Details: 120 obese adults (≥50 years; 60 Tai Chi, 60 control); sex not specified.

Intervention Protocols: Tai Chi exercise; duration/frequency not detailed.

Key Findings with Statistical Data: Lower BP ($p<0.001$ at 2/6 years); improved cardiopulmonary function (CI $p<0.05$); reduced CVD incidence (16.67% vs. 38.33%, $p<0.001$).

Potential Mechanisms for Medical Professionals: Enhances cardiopulmonary efficiency via metabolic regulation.

Benefits for Tai Chi/Qigong Enthusiasts: Qi cultivation prevents obesity-related CVD.

Strengths: 6-year follow-up.

Limitations: Lacks intervention details.

Clinical Recommendations: For elderly obese to prevent CVD.

Study 15: Taylor-Piliae & Finley (2020) [45]

Study Design: Systematic review and meta-analysis on Tai Chi for psychological well-being in CVD.

Participant Details: 1853 participants (mean age 66, 44% women) with CVD.

Intervention Protocols: Tai Chi; details not specified.

Key Findings with Statistical Data: Improved general QoL (Hedges' $g=0.96$, $p=0.02$, $I^2=94.99\%$); mental health QoL ($g=0.20$, $p=0.01$, $I^2=15.93\%$); reduced depression ($g=0.69$, $p<0.001$, $I^2=86.64\%$).

Potential Mechanisms for Medical Professionals: Psychological pathways via mindfulness.

Benefits for Tai Chi/Qigong Enthusiasts: Qi harmony boosts emotional health.

Strengths: Large sample synthesis.

Limitations: Few recent studies; needs better designs.

Clinical Recommendations: For CVD psychological support.

Study 16: Wu et al. (2020) [46]

Study Design: Systematic review and meta-analysis of RCTs on Tai Chi for myocardial infarction (MI).

Participant Details: 615 MI patients (294 Tai Chi, 261 control); age/sex not specified.

Intervention Protocols: Tai Chi; details not provided.

Key Findings with Statistical Data: Improved 6-min walk (SMD=1.30 [95% CI 0.50-2.11]); LVEF (SMD=1 [95% CI 0.43-1.57]); better QoL.

Potential Mechanisms for Medical Professionals: Enhances ventricular function post-MI.

Benefits for Tai Chi/Qigong Enthusiasts: Qi restoration for cardiac recovery.

Strengths: Multi-database RCT focus.

Limitations: High heterogeneity.

Clinical Recommendations: Option for MI rehab.

Study 17: Yan et al. (2022) [47]

Study Design: 12-week RCT comparing Tai Chi and square dance for essential hypertension.

Participant Details: 144 participants (mean age 59.89±6.85, 34.72% male) with essential hypertension.

Intervention Protocols: Tai Chi or square dance: 60 min/session, 5x/week, 12 weeks.

Key Findings with Statistical Data: Reduced BP, BMI, improved fitness ($p<0.05$ time effects); Tai Chi greater effect sizes.

Potential Mechanisms for Medical Professionals: Aerobic benefits on cardiorespiratory system.

Benefits for Tai Chi/Qigong Enthusiasts: Superior Qi cultivation vs. dance.

Strengths: Active comparator.

Limitations: No effect on some risks.

Clinical Recommendations: Prefer Tai Chi for hypertension.

Study 18: Yang et al. (2022) [48]

Study Design: Systematic review and meta-analysis of 37 RCTs on Tai Chi for psychological well-being in CVD/risks.

Participant Details: 3525 participants with CVD/risk factors; age/sex not specified.

Intervention Protocols: Tai Chi vs. usual care; details not provided.

Key Findings with Statistical Data: Reduced anxiety (SMD -2.13 [95% CI -2.55 to -1.70], I^2=60%); depression (SMD -0.86 [95% CI -1.35 to -0.37], I^2=88%); improved mental health (MD 7.86 [95% CI 5.20-10.52], I^2=71%).

Potential Mechanisms for Medical Professionals: Stress reduction pathways.

Benefits for Tai Chi/Qigong Enthusiasts: Qi for well-being in CVD.

Strengths: Large inclusion.

Limitations: Poor quality, heterogeneity.

Clinical Recommendations: Beneficial and safe; monitor safety.

Study 19: Yang et al. (2017) [49]

Study Design: Systematic review protocol for RCTs on Tai Chi for psychological well-being in CVD/risks.

Participant Details: Planned for CVD/risk patients; no data yet.

Intervention Protocols: Tai Chi; details pending.

Key Findings with Statistical Data: Not applicable (protocol).

Potential Mechanisms for Medical Professionals: Anticipated stress/anxiety pathways.

Benefits for Tai Chi/Qigong Enthusiasts: Qi potential in CVD.

Strengths: PROSPERO-registered.

Limitations: No results; protocol only.

Clinical Recommendations: Await review for guidance.

Study 20: Yeh et al. (2009) [50]

Study Design: Systematic review of 29 studies (RCTs, non-RCTs) on Tai Chi for CVD/risks.

Participant Details: 5-207 per study; CVD (e.g., CHD, HF) or risks (hypertension, dyslipidemia).

Intervention Protocols: Tai Chi; 8 weeks-3 years; frequency not specified.

Key Findings with Statistical Data: BP reductions, exercise capacity increases; no specific stats; no adverse effects.

Potential Mechanisms for Medical Professionals: Improves BP and capacity via exercise.

Benefits for Tai Chi/Qigong Enthusiasts: Qi adjunct for CVD.

Strengths: Adequate quality in some RCTs.

Limitations: Small samples.

Clinical Recommendations: Beneficial adjunct; more research.

Concluding Comments

The present AI-assisted review of 20 studies reinforces a growing body of evidence that Tai Chi and Qigong offer meaningful cardiovascular benefits with an exceptionally favorable safety profile. These ancient practices appear to address multiple pathophysiological pathways simultaneously (hemodynamic, inflammatory,

autonomic, and psychosocial), making them uniquely suited as complementary therapies in an era of multifaceted CVD risk.

From a clinical perspective, Tai Chi and Qigong can be readily integrated into existing cardiac rehabilitation programs, primary care settings, or community wellness initiatives at virtually no additional cost and with minimal equipment or supervision requirements. Their low-impact nature makes them particularly valuable for older adults, patients with chronic heart failure, post-myocardial infarction survivors, and individuals with mobility limitations or exercise intolerance, populations often underrepresented in conventional exercise trials.

The consistent signals for blood pressure reduction, improved functional capacity, and enhanced psychological well-being suggest that even modest adoption of these practices on a population level could yield substantial public health impact, especially in regions with rising CVD burden and limited access to intensive rehabilitation services.

Nevertheless, the field has not yet reached maturity. Future research should prioritize large, adequately powered, long-term randomized trials that incorporate hard clinical endpoints (major adverse cardiovascular events, hospitalization rates, and mortality), alongside standardized Tai Chi/Qigong protocols, objective adherence monitoring, and cost-effectiveness analyses. Head-to-head comparisons with established exercise modalities (e.g., moderate-intensity continuous training or high-intensity interval training) would further clarify relative efficacy.

In summary, Tai Chi and Qigong represent a rare convergence of ancient wisdom and modern evidence-based medicine. When applied thoughtfully as part of comprehensive cardiovascular care, they have the potential to improve not only physiological outcomes but also the overall quality of life of patients living with, or at risk for, cardiovascular disease. Wider clinical implementation, supported by continued rigorous investigation, is warranted.

References

1. McGee RW. *Incorporating Tai Chi & Qigong into a Medical Practice*. New York: Prime Publishing; 2025.

2. McGee RW. *The Health Benefits of Tai Chi & Qigong*. New York: Prime Publishing; 2025.

3. McGee RW. *Utilizing Tai Chi & Qigong to Treat Cancer Survivors*. New York: Prime Publishing; 2025.

4. McGee RW. Using Chinese Herbal Medicine to Treat Cancer Patients: A Study Incorporating Artificial Intelligence. BJSTR. 2024;56(5):48647-55. DOI: 10.26717/BJSTR.2024.56.008924

5. McGee RW. The Use of Artificial Intelligence, Tai Chi and Qigong to Treat Post Traumatic Stress Disorder (PTSD). BJSTR. 2024;57(4):49461-6. DOI: 10.26717/BJSTR.2024.57.009030

6. McGee RW. Using Alternative Medical Techniques to Lose Weight. BJSTR. 2024;58(4):50679-84. DOI: 10.26717/BJSTR.2024.58.009188

7. McGee RW. Leveraging DeepSeek: An AI-Powered Exploration of Traditional Chinese Medicine (Tai Chi and Qigong) for Medical Research. American Journal of Biomedical Science & Research. 2025;25(5):645-54. DOI: 10.34297/AJBSR.2025.25.003362

8. McGee RW. What is Bafa Wubu Tai Chi, and Is It a More Effective Medical Technique than the Yang 24 Form? A Preliminary Study. BJSTR. 2025;61(1):53139-48. DOI: 10.26717/BJSTR.2025.61.009531

9. McGee RW. Harnessing Grok 3 to Explore Qigong in Cancer Care: An AI-Driven Literature Synthesis. Collective Journal of Oncology. 2025;2(1): ART0076.

10. Docherty D. *The Tai Chi Bible*. Firefly Books; 2014.

11. Liang SY, Wu WC. *Simplified Tai Chi Chuan*. Wolfeboro, NH: YMAA Publication Center; 2014.

12. Tsao J. *Practical Tai Chi Training*. San Diego: Tai Chi Healthways; 2021.

13. Tsao J. *108 Answers to Tai Chi Practice*. San Diego: Tai Chi Healthways; 2023.

14. Wayne, P.M. *The Harvard Medical School Guide to Tai Chi*. Boulder: Shambhala, 2013.

15. Cohen KS. *The Way of Qigong*. New York: Ballantine Books; 1997.

16. Jahnke R. *The Healer Within*. San Francisco: Harper; 1997.

17. Korahais, A. *Flowing Zen: Finding True Healing with Qigong*. Flowing Zen; 2022.

18. Ge LK, Huang Z, Wei GX. Global research trends in the effects of exercise on depression: A bibliometric study over the past two decades. Heliyon. 2024 Jun 7;10(12):e32315. doi: 10.1016/j.heliyon.2024.e32315. PMID: 39183831; PMCID: PMC11341242.

19. Guan C, Gu Y, Cheng Z, Xie F, Yao F. Global trends of traditional Chinese exercises for musculoskeletal disorders treatment research from 2000 to 2022: A bibliometric analysis. Front Neurosci. 2023 Feb 10;17:1096789. doi: 10.3389/fnins.2023.1096789. PMID: 36845420; PMCID: PMC9950260.

20. Li W, Weng L, Xiang Q, Fan T. Trends in Research on Traditional Chinese Health Exercises for Improving Cognitive Function: A Bibliometric Analysis of the Literature From 2001 to 2020. Front Public Health. 2022 Jan 6;9:794836. doi: 10.3389/fpubh.2021.794836. PMID: 35071171; PMCID: PMC8770942.

21. Morandi G, Pepe D. Tai Chi and Qigong in Medical Research: A Comprehensive Bibliometric Analysis. Altern Ther Health Med. 2023 May;29(4):258-265. PMID: 34144532.

22. Song, C., Chen, K., Jin, Y., Chen, L. & Huang, Z. Visual analysis of research hotspots and trends in traditional Chinese medicine for depression in the 21st century: A bibliometric study based on citespace and VOSviewer. Heliyon 11 (2025) e39785.

23. Marcos A M Almeida and Matheus H C de Araujo. The Use of Artificial Intelligence in the Classification of Medical Images of Brain Tumors. Biomed J Sci & Tech Res 53(4)-2023. BJSTR. MS.ID.008450 https://biomedres.us/pdfs/BJSTR.MS.ID.008450.pdf

24. Sotiris Raptis, Christos Ilioudis, Vasiliki Softa and Kiki Theodorou. Artificial Intelligence in Predicting Treatment Response in Non-Small-Cell Lung Cancer (NSCLC). Biomed J Sci & Tech Res 47(3)-2022. BJSTR. MS.ID.007497 https://biomedres.us/pdfs/BJSTR.MS.ID.007497.pdf

25. Ik Whan G Kwon, Sung Ho Kim. Digital Transformation in Healthcare. Biomed J Sci & Tech Res 34(5)-2021. BJSTR.MS.ID.005603. https://biomedres.us/pdfs/BJSTR.MS.ID.005603.pdf

26. Kuo Chen Chou. How the Artificial Intelligence Tool iRNA-PseU is Working in Predicting the RNA Pseudouridine Sites?. Biomed J Sci & Tech Res 24(2)-2020. BJSTR.MS.ID.004016. https://biomedres.us/pdfs/BJSTR.MS.ID.004016.pdf

27. Archana P, Lala Behari S, Debabrata P, Vinita S. Artificial Intelligence and Virtual Environment for Microalgal Source for Production of Nutraceuticals. Biomed J Sci & Tech Res 13(5)-2019. BJSTR. MS.ID.002459. DOI: 10.26717/ BJSTR.2019.13.002459. https://biomedres.us/pdfs/BJSTR.MS.ID.002459.pdf

28. Min Wu. Modeling of an Intelligent Electronic Medical Records System. Biomed J Sci & Tech Res 19(4)-2019. BJSTR. MS.ID.003326. https://biomedres.us/pdfs/BJSTR.MS.ID.003326.pdf

29. Richard M F, Matthew R F, Andrew Mc K, Tapan K C. FMTVDM©℗*** Nuclear Imaging Artificial (AI) Intelligence but First We Need to Clarify the Use Of (1)Stress, (2) Rest, (3) Redistribution and (4) Quantification. Biomed J Sci&Tech Res 7(2)- 2018. BJSTR.MS.ID.001489. DOI: 10.26717/ BJSTR.2018.07.001489. https://biomedres.us/pdfs/BJSTR.MS.ID.001489.pdf

30. Woo Sung Son. Drug Discovery Enhanced by Artificial Intelligence. Biomed J Sci & Tech Res 12(1)-2018. BJSTR. MS.ID.002189. DOI: 10.26717/ BJSTR.2018.11.002189.

31. Cheng D, Wang B, Li Q, Guo Y, Wang L. Research on Function and Mechanism of Tai Chi on Cardiac Rehabilitation. Chin J Integr Med. 2020;26(5):393-400. doi:10.1007/s11655-020-3262-9.

32. Dalusung-Angosta A. The impact of Tai Chi exercise on coronary heart disease: a systematic review. J Am Acad Nurse Pract. 2011;23(7):376-81. doi:10.1111/j.1745-7599.2011.00597.x.

33. Danilov A, Frishman WH. Complementary Therapies: Tai Chi in the Prevention and Management of Cardiovascular Disease. Cardiol Rev. 2025;33(1):54-57. doi:10.1097/CRD.0000000000000578.

34. Hartley L, Flowers N, Lee MS, Ernst E, Rees K. Tai chi for primary prevention of cardiovascular disease. Cochrane Database Syst Rev. 2014;(4):CD010366. doi:10.1002/14651858.CD010366.pub2.

35. Lee MS, Pittler MH, Taylor-Piliae RE, Ernst E. Tai chi for cardiovascular disease and its risk factors: a systematic review. J Hypertens. 2007;25(9):1974-5. doi:10.1097/HJH.0b013e32828cc8cd.

36. Liang H, Luo S, Chen X, Lu Y, Liu Z, Wei L. Effects of Tai Chi exercise on cardiovascular disease risk factors and quality of life in adults with essential hypertension: A meta-analysis. Heart Lung. 2020;49(4):353-363. doi:10.1016/j.hrtlng.2020.02.041.

37. Liu T, Chan AW, Liu YH, Taylor-Piliae RE. Effects of Tai Chi-based cardiac rehabilitation on aerobic endurance, psychosocial well-being, and cardiovascular risk reduction among patients with coronary heart disease: A systematic review and meta-analysis. Eur J Cardiovasc Nurs. 2018;17(4):368-383. doi:10.1177/1474515117749592.

38. Mori K, Nomura T, Akezaki Y, Yamamoto R, Iwakura H. Impact of Tai Chi Yuttari-exercise on arteriosclerosis and physical function in older people. Arch Gerontol Geriatr. 2020;87:104011. doi:10.1016/j.archger.2020.104011.

39. Nery RM, Zanini M, Ferrari JN, Silva CA, Farias LF, Comel JC, Belli KC, Silveira AD, Santos AC, Stein R. Tai Chi Chuan for cardiac rehabilitation in patients with coronary arterial disease. Arq Bras Cardiol. 2014;102(6):588-92. doi:10.5935/abc.20140049.

40. Ng SM, Wang CW, Ho RT, Ziea TC, He J, Wong VC, Chan CL. Tai chi exercise for patients with heart disease: a systematic review of controlled clinical trials. Altern Ther Health Med. 2012;18(3):16-22.

41. Smith GD. Tai Chi: a promising adjunct nursing intervention to reduce risks of cardiovascular disease and improve psychosocial well-being in adults with hypertension. Evid Based Nurs. 2019;22(2):45. doi:10.1136/ebnurs-2018-103007.

42. Taylor-Piliae R, Finley BA. Benefits of Tai Chi Exercise Among Adults With Chronic Heart Failure: A Systematic Review and Meta-Analysis. J Cardiovasc Nurs. 2020;35(5):423-434. doi:10.1097/JCN.0000000000000703.

43. Robins JL, Elswick RK Jr, Sturgill J, McCain NL. The Effects of Tai Chi on Cardiovascular Risk in Women. Am J Health Promot. 2016;30(8):613-622. doi:10.4278/ajhp.140618-QUAN-287.

44. Sun L, Zhuang LP, Li XZ, Zheng J, Wu WF. Tai Chi can prevent cardiovascular disease and improve cardiopulmonary function of adults with obesity aged 50 years and older: A long-term follow-up study. Medicine (Baltimore). 2019;98(42):e17509. doi:10.1097/MD.0000000000017509.

45. Taylor-Piliae RE, Finley BA. Tai Chi exercise for psychological well-being among adults with cardiovascular disease: A systematic review and meta-analysis. Eur J Cardiovasc Nurs. 2020;19(7):580-591. doi:10.1177/1474515120926068.

46. Wu B, Ding Y, Zhong B, Jin X, Cao Y, Xu D. Intervention Treatment for Myocardial Infarction With Tai Chi: A Systematic Review and Meta-analysis. Arch Phys Med Rehabil. 2020;101(12):2206-2218. doi:10.1016/j.apmr.2020.02.012.

47. Yan ZW, Yang Z, Yang JH, Song CL, Zhao Z, Gao Y. Comparison between Tai Chi and square dance on the antihypertensive effect and cardiovascular disease risk

factors in patients with essential hypertension: a 12-week randomized controlled trial. J Sports Med Phys Fitness. 2022;62(11):1568-1575. doi:10.23736/S0022-4707.22.13424-9.

48. Yang G, Li W, Klupp N, Cao H, Liu J, Bensoussan A, Kiat H, Karamacoska D, Chang D. Does tai chi improve psychological well-being and quality of life in patients with cardiovascular disease and/or cardiovascular risk factors? A systematic review. BMC Complement Med Ther. 2022;22(1):3. doi:10.1186/s12906-021-03482-0.

49. Yang G, Li W, Cao H, Klupp N, Liu J, Bensoussan A, Kiat H, Chang D. Does Tai Chi improve psychological well-being and quality of life in patients with cardiovascular disease and/or cardiovascular risk factors? A systematic review protocol. BMJ Open. 2017;7(8):e014507. doi:10.1136/bmjopen-2016-014507.

50. Yeh GY, Wang C, Wayne PM, Phillips R. Tai chi exercise for patients with cardiovascular conditions and risk factors: A SYSTEMATIC REVIEW. J Cardiopulm Rehabil Prev. 2009;29(3):152-60. doi:10.1097/HCR.0b013e3181a33379.