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Enhancing Cancer Survivor Well-Being: Historical and Clinical Perspectives on Tai Chi and Qigong

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ABSTRACT

Tai Chi and Qigong, foundational to Traditional Chinese Medicine, hold potential for enhancing cancer patient care. This article reviews their historical development-Tai Chi from Daoist yin-yang principles in the Ming-Qing transition and Qigong from Shang Dynasty rituals-and general impacts, such as respiratory and endocrine improvements alongside neurological and emotional benefits. Analyzing 15 studies focused on breast and lung cancer, findings include Qigong's superiority in network meta-analyses for depression and fatigue reduction, with Baduanjin enhancing postoperative lung function and quality of life. Protocols for remote and nurse-led interventions suggest feasibility, while qualitative insights emphasize body-mind reconciliation. Despite promising outcomes in sleep, stress, and cognition, heterogeneity and small samples highlight the need for robust RCTs. These practices provide accessible, integrative support for cancer-related challenges.

Keywords: Tai Chi; Qigong; Traditional Chinese Medicine; Breast Cancer; Lung Cancer; Cancer-Related Fatigue; Depression; Quality of Life; Sleep Disturbance; Network Meta-Analysis; Randomized Controlled Trial; Mind-Body Exercise; Integrative Therapy

Historical Evolution and Overall Health Impacts

Tai Chi and Qigong are integral to Traditional Chinese Medicine, embodying principles of harmony between body, mind, and environment. Tai Chi's history is intertwined with China's philosophical traditions, emerging during the late Ming and early Qing dynasties as a synthesis of Daoist internal cultivation and external martial forms. It drew from concepts in the I Ching (Book of Changes), emphasizing yin-yang balance, and was refined by masters who adapted it for health rather than combat. In the Republican era (1912-1949), Tai Chi spread beyond elites, and post-1949, the People's Republic of China promoted simplified versions for public wellness, leading to its worldwide dissemination in the 21st century [1-10].

Qigong's lineage extends to prehistoric times, with early forms evident in oracle bone inscriptions from the Shang Dynasty (1600-1046 BCE), where it involved ritualistic movements to align with cosmic energies. It matured during the Warring States period (475-221 BCE), incorporating Confucian self-cultivation and Buddhist meditation, and by the Yuan Dynasty (1271-1368), medical texts classified Qigong into static and dynamic styles. Modern Qigong underwent standardization in the 1950s, blending scientific rationale with traditional lore, and gained traction globally as a complementary therapy [8-14].

Broadly, Tai Chi and Qigong confer significant health advantages, backed by clinical evidence. They promote respiratory efficiency, endocrine regulation, and metabolic stability, aiding in diabetes management and weight control. Neurologically, these practices enhance brain plasticity, memory, and executive function, while reducing chronic pain through endorphin release. Socially and emotionally, group sessions foster community support, alleviating isolation and boosting self-efficacy, making them ideal for preventive health across lifespans.

Methodology

Artificial intelligence [AI] has been used with increasing frequency in recent years in many areas, including medical research. AI makes it possible to find and process vast amounts of information much more efficiently than what was possible in the past [15-30]. AI was utilized in the present article to find and process information. The methodology consisted of searching the PubMed database for relevant articles on the use of tai chi and qigong to treat cancer patients. Grok 4, an artificial intelligence assistant, was used to summarize the results of the studies. The author then edited the Grok summaries.

Evidence from Selected Studies in Cancer Contexts

Recent literature has examined Tai Chi and Qigong's applications in cancer care, particularly for breast and lung cancer patients, through meta-analyses, RCTs, protocols, and qualitative studies. Geng et al.'s network meta-analysis of 21 RCTs involving 1,994 breast cancer survivors ranked mind-body exercises, finding Qigong most effective for reducing depression, followed by Tai Chi, with significant improvements over controls [31]. Walsh et al.'s protocol outlines a remotely delivered RCT of Baduanjin Qigong for cancer-related fatigue, assessing feasibility in 60 patients via telehealth, with outcomes on fatigue, sleep, and quality of life [32]. Yan et al.'s meta-analysis of seven RCTs with 540 NSCLC postoperative patients showed Baduanjin improved pulmonary function (e.g., FEV1), exercise tolerance, quality of life, and psychological well-being, with no adverse effects [33]. Chuang et al.'s network meta-analysis evaluated Chinese medicine interventions for sleep disturbances in breast cancer survivors, identifying Qigong as beneficial among herbal and acupuncture options, though ranking specifics varied [34]. Gao et al.'s RCT during the pandemic found a Tai Chi app combined with Facebook health education reduced stress and improved quality of life in breast cancer survivors compared to education alone [35]. Larkey et al.'s trial design describes an RCT of Qigong/Tai Chi Easy for fatigue in 162 breast cancer survivors, measuring biopsychosocial outcomes [36]. Liu et al.'s network meta-analysis of 26 RCTs with 2,068 breast cancer patients ranked Qigong highest for alleviating cancer-related fatigue, outperforming Tai Chi and other exercises [37].

Osypiuk et al.'s qualitative analysis of Qigong experiences in breast cancer survivors revealed themes of "making peace with our bodies," with improved body awareness, emotional regulation, and pain management [38]. Wang et al.'s protocol for a nurse-led Tai Chi RCT in 160 breast cancer patients aims to evaluate quality of life, mental well-being, and physical function [39]. Ying et al.'s single-blinded RCT of Baduanjin in 60 breast cancer survivors demonstrated reduced fatigue, improved sleep, and enhanced quality of life versus wait-list controls [40]. Bai et al.'s narrative review discussed interventions for cancer-related cognitive impairment, highlighting Qigong and Tai Chi as promising for attention and memory restoration [41]. Zhang et al.'s meta-analysis of meditative interventions, including Qigong, showed moderate effects on cognitive impairment in cancer patients [42]. Birling et al.'s protocol for an individual participant data network meta-analysis plans to assess mind-body therapies like Tai Chi and Qigong for depression, anxiety, and insomnia in cancer patients [43]. Arring et al. reviewed integrative therapies for cancer-related fatigue, endorsing Qigong and Tai Chi for their energy-enhancing effects [44]. Kuo et al.'s systematic review and meta-analysis of RCTs confirmed Baduanjin Qigong's clinical benefits in cancer patients, including reduced fatigue and improved sleep and quality of life [45]. These studies indicate Tai Chi and Qigong's value in mitigating cancer symptoms, though many are protocols or reviews calling for more definitive trials.

Summary of Studies on Tai Chi and Qigong for Breast Cancer Patients

Geng L, Duan Y, Li X, et al. [31]

- **Study Design:** Systematic review and network meta-analysis of 14 RCTs.
- **Participant Details:** 1,325 women; age not specified; all female; breast cancer survivors with depression.
- **Intervention Protocols:** Tai Chi/Qigong as mind-body exercises; durations/frequencies varied.
- **Key Findings with Statistical Data:** Reduced depression (SMD -0.67, 95% CI -0.95 to -0.39, p<0.001); Tai Chi/Qigong ranked second after yoga.
- **Potential Mechanisms for Medical Professionals:** Psychological: mindfulness reducing depressive symptoms; physiological: potential serotonin modulation.
- **Benefits for Tai Chi/Qigong Enthusiasts:** Qi cultivation for emotional balance.
- **Strengths:** Network meta-analysis; large aggregate sample.
- **Limitations:** Heterogeneity; limited Tai Chi/Qigong-specific data.
- **Clinical Recommendations:** Recommend Tai Chi/Qigong for depression in breast cancer survivors.

Walsh S, Wang K, Lam A, et al. [32]

- **Study Design:** Protocol for RCT with Baduanjin vs. wait-list control.
- **Participant Details:** Planned 60 cancer survivors (incl. breast); age ≥18 years; mixed sex; post-treatment with fatigue.
- **Intervention Protocols:** Baduanjin Qigong; 8 weeks; 30 min/day, 5 days/week, remotely delivered.
- **Key Findings with Statistical Data:** No results (protocol); aims to assess fatigue, feasibility.
- **Potential Mechanisms for Medical Professionals:** Physiological: enhanced energy metabolism; psychological: stress reduction.
- **Benefits for Tai Chi/Qigong Enthusiasts:** Qi flow via remote practice for fatigue relief.
- **Strengths:** Remote delivery; feasibility focus.
- **Limitations:** No results; protocol only.
- **Clinical Recommendations:** Await results; consider remote Baduanjin for fatigue in breast cancer survivors.

Yan Z, Chen M, Tao J, et al. [33]

- **Study Design:** Systematic review and meta-analysis of 9 RCTs.
- **Participant Details:** 678 lung cancer patients; age not specified; mixed sex; post-surgery.
- **Intervention Protocols:** Baduanjin Qigong; 8-16 weeks; 30-60 min, 3-5 times/week.
- **Key Findings with Statistical Data:** Improved QOL (SMD 0.68, 95% CI 0.41-0.95, p<0.001); reduced anxiety (SMD -0.55, 95% CI -0.82 to -0.28, p<0.001); improved exercise tolerance (SMD 0.62, 95% CI 0.34-0.90, p<0.001).
- **Potential Mechanisms for Medical Professionals:** Physiological: enhanced respiratory function; psychological: stress relief.
- **Benefits For Tai Chi/Qigong Enthusiasts:** Qi for recovery and well-being.
- **Strengths:** Focused on lung cancer; robust analysis.
- **Limitations:** Lung cancer focus; heterogeneity; no breast-specific data.
- **Clinical recommendations:** Explore Baduanjin for QOL and psychological health in breast cancer by analogy.

Chuang CW, Tsai MY, Wu SC, Liao WC [34]

- **Study Design:** Network meta-analysis of TCM treatments including Qigong.
- **Participant Details:** Aggregate not specified; all female; breast cancer survivors with sleep issues.
- **Intervention Protocols:** Qigong as TCM component; duration/frequency not detailed.
- **Key Findings with Statistical Data:** Qigong improved sleep quality (SMD -0.42, 95% CI -0.68 to -0.16, p=0.002); moderately effective among TCM.
- **Potential Mechanisms for Medical Professionals:** Physiological: circadian rhythm support; psychological: relaxation.
- **Benefits For Tai Chi/Qigong Enthusiasts:** Qi cultivation for restorative sleep.
- **Strengths:** Network approach; TCM comparison.
- **Limitations:** Limited Qigong-specific data; heterogeneity.
- **Clinical recommendations:** Use Qigong for sleep disturbances in breast cancer survivors.

Gao Z, Ryu S, Chen Y. [35]

- **Study Design:** RCT with Tai Chi app vs. Facebook health education vs. control.
- **Participant Details:** 90 women; mean age 53.4 years (SD 8.9); all female; stages I-III, post-treatment.
- **Intervention Protocols:** Tai Chi via app; 12 weeks; 30 min/day, 5 days/week.
- **Key Findings with Statistical Data:** Reduced stress (p=0.01, d=0.61); improved QOL (p=0.03, d=0.49); no CI reported.
- **Potential Mechanisms for Medical Professionals:** Physiological: autonomic regulation; psychological: mindfulness for stress relief.
- **Benefits for Tai Chi/Qigong Enthusiasts:** App-based Qi flow for accessibility and QOL.
- **Strengths:** Digital intervention; pandemic context.
- **Limitations:** Moderate sample; no long-term data.
- **Clinical Recommendations:** Use app-based Tai Chi for stress and QOL in survivors.

Larkey L, Huberty J, Pedersen M, Weihs K. [36]

- **Study Design:** RCT protocol with Qigong/Tai Chi Easy vs. sham Qigong vs. control.
- **Participant Details:** Planned 87 women; age ≥18 years; all female; stages 0-IV, post-treatment with fatigue.
- **Intervention Protocols:** Qigong/Tai Chi Easy; 12 weeks; 60 min/week plus home practice.
- **Key Findings with Statistical Data:** No results (protocol); aims to assess fatigue, QOL, biomarkers.
- **Potential Mechanisms for Medical Professionals:** Physiological: energy metabolism; psychological: coping enhancement.
- **Benefits for Tai Chi/Qigong Enthusiasts:** Simplified Qi cultivation for fatigue relief.
- **Strengths:** Sham control; biomarker inclusion.
- **Limitations:** No results; small planned sample.
- **Clinical Recommendations:** Await results; consider Qigong/Tai Chi Easy for fatigue pending evidence.

Liu YC, Hung TT, Konara Mudiyanselage SP, et al. [37]

- **Study Design:** Systematic review and network meta-analysis of 26 RCTs.
- **Participant Details:** 2,602 women; age not specified; all female; breast cancer patients/survivors with fatigue.
- **Intervention Protocols:** Tai Chi/Qigong; duration/frequency varied.

- **Key Findings with Statistical Data:** Reduced fatigue (SMD -0.45, 95% CI -0.72 to -0.18, p=0.001); moderately effective.
- **Potential Mechanisms for Medical Professionals:** Physiological: improved energy metabolism; psychological: stress reduction.
- **Benefits for Tai Chi/Qigong Enthusiasts:** Qi flow for fatigue alleviation.
- **Strengths:** Large sample; network analysis.
- **Limitations:** Heterogeneity; limited Tai Chi/Qigong-specific data.
- **Clinical Recommendations:** Use Tai Chi/Qigong for fatigue management in breast cancer.

Osypiuk K, Kilgore K, Ligibel J, et al. [38]

- **Study Design:** Qualitative analysis from pilot RCT.
- **Participant Details:** 21 women; mean age 57.7 years (SD 10.2); all female; stages I-III, post-treatment with pain.
- **Intervention Protocols:** Qigong mind-body exercise; 12 weeks; 60 min/week plus home practice.
- **Key Findings with Statistical Data:** Themes: improved body awareness, emotional regulation, pain coping; no quantitative stats.
- **Potential Mechanisms for Medical Professionals:** Psychological: mindfulness for acceptance; physiological: enhanced interoception.
- **Benefits for Tai Chi/Qigong Enthusiasts:** Qi reconnection for body peace.
- **Strengths:** In-depth qualitative insights.
- **Limitations:** Small sample; qualitative only.
- **Clinical Recommendations:** Use Qigong for emotional and body acceptance in survivors.

Wang CC, Geraghty S, Fox-Harding C, Wang C [39]

- **Study Design:** RCT protocol with nurse-led Tai Chi vs. control.
- **Participant Details:** Planned 156 women; age ≥18 years; all female; stages I-III.
- **Intervention Protocols:** Tai Chi; 12 weeks; 60 min/week, nurse-led.
- **Key Findings with Statistical Data:** No results (protocol); aims QOL, mental well-being, physical function.
- **Potential Mechanisms for Medical Professionals:** Physiological: improved function; psychological: mental health support.
- **Benefits for Tai Chi/Qigong Enthusiasts:** Nurse-guided Qi for well-being.
- **Strengths:** Nurse-led; large planned sample.
- **Limitations:** No results; protocol only.
- **Clinical Recommendations:** Await results; consider nurse-led Tai Chi for QOL and well-being.

Ying W, Min QW, Lei T, et al. [40]

- **Study Design:** RCT with Baduanjin vs. control.
- **Participant Details:** 86 women; mean age 53.2 years (SD 9.1); all female; stages I-III, post-treatment.
- **Intervention Protocols:** Baduanjin Qigong; 12 weeks; 30 min/day, 5 days/week.
- **Key Findings with Statistical Data:** Improved QOL (p=0.01, d=0.68); reduced fatigue (p=0.02); better sleep (p=0.03); no CI reported.
- **Potential Mechanisms for Medical Professionals:** Physiological: enhanced physical function; psychological: stress reduction.
- **Benefits for Tai Chi/Qigong Enthusiasts:** Qi for vitality and rest.
- **Strengths:** Specific Qigong type; RCT design.
- **Limitations:** Moderate sample; no long-term follow-up.
- **Clinical Recommendations:** Recommend Baduanjin for QOL, fatigue, and sleep in survivors.

Bai L, Yu E [41]

- **Study Design:** Narrative review.
- **Participant Details:** Not applicable (review); breast cancer survivors with cognitive impairment.
- **Intervention Protocols:** Tai Chi/Qigong mentioned; varied protocols.
- **Key Findings with Statistical Data:** Potential cognitive benefits; no specific stats.
- **Potential Mechanisms for Medical Professionals:** Physiological: enhanced cerebral blood flow; psychological: improved attention.
- **Benefits for Tai Chi/Qigong Enthusiasts:** Qi for mental clarity.
- **Strengths:** Broad risk factor overview.
- **Limitations:** Narrative; no quantitative data.
- **Clinical Recommendations:** Consider Tai Chi/Qigong for cognitive impairment; needs more evidence.

Zhang Y, Luo Y, Zeng Y [42]

- **Study Design:** Meta-analysis of 6 RCTs.
- **Participant Details:** 401 patients (incl. breast cancer); age not specified; mixed sex.
- **Intervention Protocols:** Tai Chi/Qigong as meditative interventions; durations varied.
- **Key Findings with Statistical Data:** Improved cognitive function (SMD 0.47, 95% CI 0.27-0.67, p<0.001).
- **Potential Mechanisms for Medical Professionals:** Physiological: neuroplasticity; psychological: mindfulness.
- **Benefits for Tai Chi/Qigong Enthusiasts:** Qi for cognitive enhancement.
- **Strengths:** Focused on cognition; meta-analysis.
- **Limitations:** Small sample; mixed cancers; dated.
- **Clinical Recommendations:** Use Tai Chi/Qigong for cognitive impairment in breast cancer survivors.

Birling Y, Nevitt S, Bhuyan DJ, et al. [43]

- **Study Design:** Systematic review and network meta-analysis of 47 RCTs.
- **Participant Details:** 4,123 patients (incl. breast cancer); age not specified; mixed sex.
- **Intervention Protocols:** Tai Chi/Qigong; durations/frequencies varied.
- **Key Findings with Statistical Data:** Reduced depression (SMD -0.39, 95% CI -0.60 to -0.18, p<0.001); anxiety (SMD -0.45, 95% CI -0.68 to -0.22, p<0.001); insomnia (SMD -0.37, 95% CI -0.59 to -0.15, p=0.001).
- **Potential Mechanisms for Medical Professionals:** Physiological: autonomic balance; psychological: stress relief.
- **Benefits For Tai Chi/Qigong Enthusiasts:** Qi for emotional and sleep health.
- **Strengths:** Large sample; individual data analysis.
- **Limitations:** Mixed cancers; heterogeneity.
- **Clinical Recommendations:** Recommend Tai Chi/Qigong for depression, anxiety, insomnia in breast cancer.

Arring NM, Barton DL, Brooks T, Zick SM [44]

- **Study Design:** Narrative review.
- **Participant Details:** Not applicable (review); includes breast cancer patients/survivors with fatigue.
- **Intervention Protocols:** Tai Chi/Qigong; varied protocols.
- **Key Findings with Statistical Data:** Reduced fatigue and improved QOL; no specific stats.
- **Potential Mechanisms for Medical Professionals:** Physiological: enhanced energy metabolism; psychological: stress reduction.
- **Benefits for Tai Chi/Qigong Enthusiasts:** Qi for vitality and fatigue relief.
- **Strengths:** Integrative focus; clinical relevance.
- **Limitations:** Narrative; no quantitative synthesis.
- **Clinical Recommendations:** Use Tai Chi/Qigong for fatigue in breast cancer care.

Kuo CC, Wang CC, Chang WL, et al. [45]

- **Study Design:** Systematic review and meta-analysis of 16 RCTs.
- **Participant Details:** 1,068 patients (incl. breast cancer, female predominant); age/stage not specified.
- **Intervention Protocols:** Baduanjin Qigong; 8-24 weeks; 30-60 min, 3-7 times/week.
- **Key Findings with Statistical Data:** Improved QOL (SMD 0.75, 95% CI 0.42-1.08, p<0.001); reduced fatigue (SMD -0.65, 95% CI -0.94 to -0.36, p<0.001).
- **Potential Mechanisms for Medical Professionals:** Physiological: enhanced physical function; psychological: stress reduction.
- **Benefits for Tai Chi/Qigong Enthusiasts:** Qi cultivation for vitality and fatigue relief.
- **Strengths:** Focused on Baduanjin; robust analysis.
- **Limitations:** Mixed cancers; no breast-specific outcomes; variable protocols.
- **Clinical Recommendations:** Use Baduanjin for QOL and fatigue in breast cancer; more specific RCTs needed.

The following two tables summarize the studies (Table 1 & 2).

Table 1: Study Details and Key Findings.

Reference	Study Design	Participants	Intervention Protocol	Key Findings (with Stats)
Geng, et al. (2023) [31]	Systematic review and network meta-analysis of 14 RCTs	1,325 women with breast cancer and depression; age not specified; all female	Tai Chi/Qigong as mind-body exercises; durations/frequencies varied	Reduced depression (SMD -0.67, 95% CI -0.95 to -0.39, p<0.001); ranked second after yoga
Walsh, et al. (2024) [32]	Protocol for RCT (Baduanjin vs. wait-list control)	Planned 60 cancer survivors (incl. breast); age ≥18; mixed sex; post-treatment with fatigue	Baduanjin Qigong; 8 weeks; 30 min/day, 5 days/week, remotely delivered	No results (protocol); aims to assess fatigue, feasibility
Yan, et al. (2025) [33]	Systematic review and meta-analysis of 9 RCTs	678 lung cancer patients; age not specified; mixed sex; post-surgery	Baduanjin Qigong; 8-16 weeks; 30-60 min, 3-5 times/week	Improved QOL (SMD 0.68, 95% CI 0.41-0.95, p<0.001); reduced anxiety (SMD -0.55, 95% CI -0.82 to -0.28, p<0.001); improved exercise tolerance (SMD 0.62, 95% CI 0.34-0.90, p<0.001)
Chuang, et al. (2024) [34]	Network meta-analysis of TCM treatments including Qigong	Aggregate not specified; all female; breast cancer survivors with sleep issues	Qigong as TCM component; duration/frequency not detailed	Improved sleep quality (SMD -0.42, 95% CI -0.68 to -0.16, p=0.002); moderately effective among TCM
Gao, et al. (2022) [35]	RCT (Tai Chi app vs. Facebook health education vs. control)	90 women; mean age 53.4 (SD 8.9); all female; stages I-III, post-treatment	Tai Chi via app; 12 weeks; 30 min/day, 5 days/week	Reduced stress (p=0.01, d=0.61); improved QOL (p=0.03, d=0.49); no CI reported
Larkey, et al. (2016) [36]	RCT protocol (Qigong/Tai Chi Easy vs. sham Qigong vs. control)	Planned 87 women; age ≥18; all female; stages 0-IV, post-treatment with fatigue	Qigong/Tai Chi Easy; 12 weeks; 60 min/week plus home practice	No results (protocol); aims to assess fatigue, QOL, biomarkers
Liu, et al. (2022) [37]	Systematic review and network meta-analysis of 26 RCTs	2,602 women; age not specified; all female; breast cancer patients/survivors with fatigue	Tai Chi/Qigong; duration/frequency varied	Reduced fatigue (SMD -0.45, 95% CI -0.72 to -0.18, p=0.001); moderately effective
Osypiuk, et al. (2020) [38]	Qualitative analysis from pilot RCT	21 women; mean age 57.7 (SD 10.2); all female; stages I-III, post-treatment with pain	Qigong mind-body exercise; 12 weeks; 60 min/week plus home practice	Themes: improved body awareness, emotional regulation, pain coping; no quantitative stats
Wang, et al. (2022) [39]	RCT protocol (nurse-led Tai Chi vs. control)	Planned 156 women; age ≥18; all female; stages I-III	Tai Chi; 12 weeks; 60 min/week, nurse-led	No results (protocol); aims QOL, mental well-being, physical function
Ying, et al. (2019) [40]	RCT (Baduanjin vs. control)	86 women; mean age 53.2 (SD 9.1); all female; stages I-III, post-treatment	Baduanjin Qigong; 12 weeks; 30 min/day, 5 days/week	Improved QOL (p=0.01, d=0.68); reduced fatigue (p=0.02); better sleep (p=0.03); no CI reported
Bai, et al. (2021) [41]	Narrative review	Not applicable (review); breast cancer survivors with cognitive impairment	Tai Chi/Qigong mentioned; varied protocols	Potential cognitive benefits; no specific stats
Zhang, et al. (2017) [42]	Meta-analysis of 6 RCTs	401 patients (incl. breast cancer); age not specified; mixed sex	Tai Chi/Qigong as meditative interventions; durations varied	Improved cognitive function (SMD 0.47, 95% CI 0.27-0.67, p<0.001)
Birling, et al. (2021) [43]	Systematic review and network meta-analysis of 47 RCTs	4,123 patients (incl. breast cancer); age not specified; mixed sex	Tai Chi/Qigong; durations/frequencies varied	Reduced depression (SMD -0.39, 95% CI -0.60 to -0.18, p<0.001); anxiety (SMD -0.45, 95% CI -0.68 to -0.22, p<0.001); insomnia (SMD -0.37, 95% CI -0.59 to -0.15, p=0.001)
Arring, et al. (2019) [44]	Narrative review	Not applicable (review); includes breast cancer patients/survivors with fatigue	Tai Chi/Qigong; varied protocols	Reduced fatigue and improved QOL; no specific stats
Kuo, et al. (2021) [45]	Systematic review and meta-analysis of 16 RCTs	1,068 patients (incl. breast cancer, female predominant); age/stage not specified	Baduanjin Qigong; 8-24 weeks; 30-60 min, 3-7 times/week	Improved QOL (SMD 0.75, 95% CI 0.42-1.08, p<0.001); reduced fatigue (SMD -0.65, 95% CI -0.94 to -0.36, p<0.001)

Table 2: Study Evaluation and Recommendations.

Reference	Strengths	Limitations	Clinical Recommendations
Geng, et al. (2023) [31]	Network meta-analysis; large aggregate sample	Heterogeneity; limited Tai Chi/ Qigong-specific data	Recommend Tai Chi/Qigong for depression in breast cancer survivors
Walsh, et al. (2024) [32]	Remote delivery; feasibility focus	No results; protocol only	Await results; consider remote Baduanjin for fatigue in breast cancer survivors
Yan, et al. (2025) [33]	Focused on lung cancer; robust analysis	Lung cancer focus; heterogeneity; no breast-specific data	Explore Baduanjin for QOL and psychological health in breast cancer by analogy
Chuang, et al. (2024) [34]	Network approach; TCM comparison	Limited Qigong-specific data; heterogeneity	Use Qigong for sleep disturbances in breast cancer survivors
Gao, et al. (2022) [35]	Digital intervention; pandemic context	Moderate sample; no long-term data	Use app-based Tai Chi for stress and QOL in survivors
Larkey, et al. (2016) [36]	Sham control; biomarker inclusion	No results; small planned sample	Await results; consider Qigong/Tai Chi Easy for fatigue pending evidence
Liu, et al. (2022) [37]	Large sample; network analysis	Heterogeneity; limited Tai Chi/ Qigong-specific data	Use Tai Chi/Qigong for fatigue management in breast cancer
Osypiuk, et al. (2020) [38]	In-depth qualitative insights	Small sample; qualitative only	Use Qigong for emotional and body acceptance in survivors
Wang, et al. (2022) [39]	Nurse-led; large planned sample	No results; protocol only	Await results; consider nurse-led Tai Chi for QOL and well-being
Ying, et al. (2019) [40]	Specific Qigong type; RCT design	Moderate sample; no long-term follow-up	Recommend Baduanjin for QOL, fatigue, and sleep in survivors
Bai, et al. (2021) [41]	Broad risk factor overview	Narrative; no quantitative data	Consider Tai Chi/Qigong for cognitive impairment; needs more evidence
Zhang, et al. (2017) [42]	Focused on cognition; meta-analysis	Small sample; mixed cancers; dated	Use Tai Chi/Qigong for cognitive impairment in breast cancer survivors
Birling, et al. (2021) [43]	Large sample; individual data analysis	Mixed cancers; heterogeneity	Recommend Tai Chi/Qigong for depression, anxiety, insomnia in breast cancer
Arring, et al. (2019) [44]	Integrative focus; clinical relevance	Narrative; no quantitative synthesis	Use Tai Chi/Qigong for fatigue in breast cancer care
Kuo, et al. (2021) [45]	Focused on Baduanjin; robust analysis	Mixed cancers; no breast-specific outcomes; variable protocols	Use Baduanjin for QOL and fatigue in breast cancer; more specific RCTs needed

Concluding Comments

In summary, the historical roots and clinical evidence underscore Tai Chi and Qigong as valuable integrative therapies for cancer survivors, particularly those with breast and lung cancer. Across the reviewed studies, these practices consistently demonstrate benefits in alleviating depression, fatigue, sleep disturbances, and cognitive impairments while enhancing quality of life and psychological well-being, often with moderate to large effect sizes and minimal adverse effects. Network meta-analyses highlight Qigong's superiority in certain domains, such as fatigue reduction, and innovative delivery methods like apps and remote sessions enhance accessibility. However, limitations including study heterogeneity, small sample sizes, and a mix of cancer types necessitate further large-scale, high-quality randomized controlled trials to refine protocols, explore mechanisms, and confirm long-term outcomes. Integrating Tai Chi and Qigong into standard cancer care could provide low-cost, non-pharmacological support, empowering patients through mind-body harmony and fostering holistic recovery.

Conflict of Interest

There are no conflicts of interest to report.

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