

The therapeutic effect of Reiki therapy on fatigue intervention: A meta-analysis

Jiao Chen

931061848@qq.com

Chengdu University of Traditional Chinese Medicine

Fang Wang

Chengdu University of Traditional Chinese Medicine

Hongyue He

Chengdu University of Traditional Chinese Medicine

Lixin Liu

Chengdu University of Traditional Chinese Medicine

Systematic Review

Keywords: Reiki therapy, Fatigue, Meta-analysis

Posted Date: July 30th, 2025

DOI: <https://doi.org/10.21203/rs.3.rs-6947331/v1>

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Additional Declarations: No competing interests reported.

Abstract

Purpose

This meta-analysis aimed to systematically evaluate the therapeutic effect of Reiki therapy on fatigue intervention, providing evidence-based reference for clinical practice and exploring potential influencing factors.

Methods

As of May 2025, we conducted systematic searches on Embase, PubMed, the Cochrane Library, and the Web of Science. Two authors independently carried out screening, data extraction, and bias assessment, employing the Cochrane ROB 1.0 tool for these procedures. We used Review Manager (RevMan 5.4.1) software for meta-analysis to narratively synthesize the remaining results.

Results

This meta-analysis study involved a total of 576 participants aged 18 and above. The findings indicated that Reiki therapy exerted a beneficial effect on fatigue intervention. (SMD = -2.86, 95% CI -3.88 ~ -1.84, $P < 0.0001$). Subgroup analysis further indicated that among cancer patients and those with chronic diseases, an offline reiki therapy intervention lasting for 4 weeks, with a duration of 20 ~ 30 minutes and a total of 8 ~ 12 intervention times, was most effective in relieving fatigue.

Conclusions

Offline Reiki therapy interventions lasting for 4 weeks, 20 to 30 minutes, and a total of 8 ~ 12 intervention times have been proven to effectively relieve fatigue in cancer patients and those with chronic diseases. However, due to the limited sample size, short-term nature and different intervention details of the existing studies, further high-quality studies are needed to verify the long-term efficacy and optimize the intervention.

Introduction

In contemporary society, with the continuous acceleration of the pace of life and the increasing intensity of work, fatigue has become a common problem that troubles the general public's physical and mental health and quality of life [1–2]. Fatigue symptoms are usually manifested as poor muscle endurance, sleep disorders, inattention, memory loss, mood swings and mental burnout [3]. Long-term fatigue not only reduces work efficiency and affects daily activities, but may also trigger a series of physical and mental diseases, such as weakened immunity, anxiety and depression, imposing a heavy burden on individuals and society [4–7]. Traditional fatigue intervention methods, such as drug treatment and physical therapy, although they have certain effects, often have limitations such as the risk of side effects, high costs or poor long-term compliance [8].

Reiki Therapy is a Non-Invasive Biofield Therapy originated in Japan. It was founded by the Japanese monk Mikao Usui in the early 20th century, integrating Eastern philosophy and the Buddhist meditation tradition [9]. Through the operator's hands, "life energy" (Chi or Prana) is guided to act on the patient's body energy (Biofield) to promote self-healing of both body and mind [10]. The core principle holds that diseases stem from energy imbalance or blockage, and by regulating the body's "Chakra" and meridian system, it restores the harmonious state of energy flow [11–13]. The operation forms include direct contact, non-contact energy transfer and remote treatment. Existing studies have shown that Reiki therapy may relieve fatigue in ways such as reducing stress and improving sleep. However, due to the small sample size and uneven methodological quality of the studies, its intervention effect has not been fully verified. Based on this, this study will adopt the meta-analysis method to systematically integrate the existing research evidence, scientifically evaluate the true therapeutic effect of Reiki therapy on fatigue intervention, and provide a reliable evidence-based basis for the application of this therapy in the field of fatigue management.

Materials and methods

Study design

This study systematically reviewed randomized controlled trials following the guidelines of Systematic Review and Meta-Analysis (PRISMA) [14]. Before screening the search results, the protocol of this review had been registered in the International Prospective Systematic Review Registry (PROSPERO) (Registration number: CRD420251060777), and this study report was in line with the PRISMA statement.

Study inclusion criteria

This meta-analysis will include studies where the population consists of adults (aged 18 years and above) experiencing fatigue, regardless of gender, race, or socioeconomic background, covering diverse groups such as chronic disease patients, cancer patients, surgery patients, those with mental health conditions related to fatigue, and normal adults suffering from work-related, stress-induced, or other types of fatigue. The research design is a randomized controlled trial. The experimental group receives Reiki or therapeutic touch treatment, while the control group has no intervention measures or receives sham Reiki treatment. Fatigue levels must be evaluated using standardized and validated fatigue assessment scales. Exclude studies that are repeatedly published, descriptive reviews, conference abstracts or letters, preclinical studies, data that cannot be converted, full texts that cannot be accessed, and dissertations. When the excluded relevant systematic reviews can provide useful background information or methodological guidance, they can be appropriately cited as supplementary references.

Search strategy

A comprehensive search spanning from inception to 25 May 2025 was conducted across Embase, PubMed, the Cochrane Library, and the Web of Science to include relevant studies. The search terms encompassed 'Reiki intervention' OR 'Reiki therapy' AND 'Fatigue' OR 'Lassitude' OR 'Tired' OR 'weary'.

Study selection process

The literature included after retrieval was managed through the EndNote 21.0 management software. After eliminating duplicate literature, two reviewers independently screened the titles and abstracts of the literature to exclude those that did not meet the qualification criteria. All relevant studies that have passed the screening process need to have their full texts obtained and undergo further eligibility assessment. When two reviewers have different opinions on the inclusion of certain studies, we will consult the opinion of a third reviewer and decide whether to include these studies to reduce the possibility of potential bias in the study selection stage. Two reviewers independently completed the data extraction, and the differences were resolved through consultation with the third reviewer.

Data extraction

The data and information of the included studies were extracted, including the author, publication time, country, research subjects, sample size, intervention measures (experimental group and control group), intervention period, total number of interventions, intervention time, intervention method and outcome indicators.

Effect size measurement

According to this research protocol, the included studies need to determine the difference in mean changes between the Reiki therapy intervention group and the control group at the observation endpoint. The data processing adopted a double-blind independent extraction mechanism, with two senior researchers performing the data extraction and original recording tasks, respectively. If there are differences in data interpretation, a three-level review mechanism will be initiated, and a third statistical expert will be introduced for cross-validation. A consistent conclusion will be reached through academic discussions and data rechecks. Furthermore, only studies where the content of the fatigue scale is elaborated in detail are eligible to enter the screening scope of the meta-analysis.

Data synthesis

This study implemented meta-analysis using RevMan 5.4.1 software. In terms of effect size synthesis, for binary categorical variables, odds ratio (OR) combined with 95% confidence interval (CI) is used as the quantitative indicator; Continuous variable data were statistically presented through standardized mean difference (SMD) and its 95% confidence interval (CI). Heterogeneity evaluation was conducted using a combined analysis of the χ^2 test and the I^2 statistic. When $P \geq 0.10$ and $I^2 < 50\%$, it was determined that the homogeneity among studies was good, and the fixed-effect model was applicable for data integration. If the $P < 0.10$ and $I^2 \geq 50\%$, it indicates that there is significant heterogeneity in this study, and the random effects model should be selected to combine the effect size [15]. In the case of significant heterogeneity, this study conducted subgroup analyses based on the type of research subjects, intervention time, intervention cycle, total number of interventions, and intervention methods to explore the potential sources of heterogeneity in therapeutic effects. Furthermore, the sensitivity

analysis was conducted using the elimination method one by one to evaluate the robustness of the comprehensive effect. In this study, bilateral tests were used for all statistical analyses. When the test results showed that the $P < 0.05$, it meant that the differences among the research subjects were statistically significant.

Risk of bias (quality) assessment

This study employed the Cochrane Risk of Bias assessment tool to conduct a systematic assessment of the quality of the included studies from seven dimensions: random sequence generation, allocation concealment, implementation of blinding between subjects and researchers, application of outcome assessment blinding, integrity of outcome data, selective reporting, and other potential biases [16]. The quality evaluation work was independently completed by two researchers, respectively, and a double-blind parallel assessment model was adopted to ensure objectivity. In the event of differences in assessment opinions, a third-party arbitration mechanism will be initiated, with the intervention of independent review experts with qualifications in evidence-based medicine. A consistent conclusion will be reached through cross-checking and academic discussions, thereby ensuring the accuracy and reliability of the research quality evaluation.

Results

Study selection

This study initially retrieved 211 English literature from 4 databases. After plagiarism detection and processing, after eliminating 74 duplicate literatures, the titles and abstracts of the remaining 137 literatures were preliminarily screened, and 25 literatures were initially selected. Subsequently, through a systematic evaluation and strict review of the full text of the above-mentioned literature, it was finally determined that 8 studies met the inclusion criteria and were included in the meta-analysis [17–24]. The specific process of literature screening is detailed in Fig. 1, and the basic information and key characteristics of the included studies are summarized in Table 1.

Risk of bias of included studies

In the risk assessment of bias in the included studies of this meta-analysis, most studies showed a low risk in the generation of random sequences, and their scientific and rigorous methods effectively reduced selection bias [20–24]. However, the risk levels of some studies were unclear, and there was potential bias and uncertainty [17–19]. Regarding configuration hiding, only one study met the low-risk standard [21], while the rest had unclear information, which might lead to selection bias. During the implementation of the blind method, affected by the intervention characteristics of Reiki therapy, the blind evaluations of the subjects or practitioners in the research are mostly high-risk or unclear, which is prone to causing performance deviations. In terms of blinding by outcome evaluators, only some studies have the risk of subjective judgment. All studies were of low risk regarding the integrity of outcome data and selective reporting, indicating that data missing was well controlled and the result reporting was

reliable. Overall, the included studies have a relatively low risk of bias in terms of data integrity and reporting. However, there are flaws in the generation of random sequences, allocation hiding, and blinding links. In particular, the difficulty in blinding caused by the intervention characteristics may affect the authenticity of the results. The summary and chart of bias risks are shown in Fig. 2 and Fig. 3.

Study characteristics

As presented in Table 1, the key features of the 8 randomized controlled trials (n = 576) included in this meta-analysis are systematically summarized. These trials exclusively focused on exploring the impact of Reiki therapy on fatigue alleviation. The included studies were rigorously evaluated based on various criteria, such as research aims, design characteristics, outcome assessment methods, and principal findings, thereby guaranteeing the reliability and comparability of the evidence integrated in the meta-analysis.

Meta-analysis

In this review, a systematic assessment of the clinical benefits of Reiki therapy in reducing fatigue was conducted, and the results of eight trials involving 576 people were carefully integrated. The results of the meta-analysis showed that compared with the control group, the fatigue level in the Reiki treatment group was significantly improved (SMD = -2.86, 95% CI -3.88 ~ -1.84, $P < 0.0001$). Heterogeneity assessment ($I^2 = 95\%$, $P < 0.01$) showed that there were significant differences among the studies. After eliminating the two studies through sensitivity analysis, the heterogeneity was significantly reduced ($I^2 = 0\%$, $P = 0.48$). A fixed-effect model should be used for meta-analysis (SMD = -1.52, 95% CI -1.73 to -1.31, $P < 0.0001$). The detailed data is shown in Fig. 4.

Subgroup analysis

To analyze the significant heterogeneity among the studies, we could divide them into different subgroups for analysis based on the factors influencing the fatigue relief effect of Reiki therapy. Based on subject characteristics, the retrieved literature was systematically classified into two distinct subgroups: cancer patients and individuals suffering from chronic inflammation. According to the intervention time (20–30 minutes, 36–40 minutes), the total number of interventions (3–5 times, 7 times, 8–12 times), the intervention period (< 1 week, 3 weeks, 4 weeks, 5 weeks), and the intervention method (offline, online, or a combination of online and offline). The results of subgroup analysis indicated that offline Reiki therapy with an intervention time of 20–30 minutes, a total of 8 ~ 12 intervention times, and an intervention cycle of 4 weeks was the most effective in terms of fatigue degree. For further detailed information, kindly consult Table 2.

Sensitivity analysis

Sensitivity analysis confirmed that regardless of which study was excluded, the combined effect size related to fatigue did not fluctuate significantly. This result strongly verified that the conclusion of this

study has good robustness and reliability. When two studies were excluded, the high heterogeneity was significantly reduced [19–20]. (Table 3, Fig. 5)

Discussions

This meta-analysis comprehensively and systematically evaluated the therapeutic effect of Reiki therapy on fatigue. The research data showed that there was no heterogeneity among the studies ($I^2 = 0\%$, $P = 0.48$), and the Reiki intervention group had a statistically significant advantage over the control group in improving fatigue levels (SMD = -1.52, 95% CI: -1.73 ~ -1.31, $P < 0.0001$). These results suggest that Reiki may be an effective supplementary therapy for fatigue management, especially in clinical populations. Several important patterns of intervention characteristics were revealed through subgroup analysis. Firstly, among different patient groups, a stronger impact could be observed in cancer patients (SMD = -2.81), followed by patients with chronic diseases (SMD = -1.37). In a study by Karaman et al., six Reiki therapy interventions were conducted on breast cancer patients undergoing chemotherapy. The results showed that the fatigue levels of the patients were significantly reduced and their quality of life was significantly improved [19]. Tsang et al. 's research confirmed the significant effect of Reiki therapy on fatigue in cancer patients. However, due to factors such as small sample size and imperfect research design, the accurate assessment of the effect of Reiki therapy may be affected [25]. Aslan et al. 's research shows that after six sessions of contactless Reiki therapy (30 minutes each) for patients with rheumatoid arthritis, their pain and fatigue levels were significantly reduced [20]. Furthermore, the research by Akpinar et al. demonstrated that conducting a four-day remote Reiki intervention (20 minutes per day) for nurses in COVID-19 clinics significantly reduced their stress and fatigue levels and enhanced the efficacy of coping strategies [26]. Therefore, Reiki may be particularly beneficial for clinical populations experiencing pathological fatigue, possibly by addressing the physiological and psychological factors of fatigue through the energy rebalancing and stress reduction mechanisms it proposes. Results show that a reiki treatment duration intervention, intervention, intervention cycle total number and the different methods of intervention have a significant influence on the result. Each intervention lasting 20–30 minutes showed a relatively strong effect (SMD = -1.53), while the intervention lasting 36–40 minutes showed a relatively weak effect (SMD = -1.51). Relevant studies have shown that Reiki therapy can reduce the average pulse rate of the subjects from 75.6 beats per minute to 66.3 beats per minute within 30 minutes [13]. At 20–30 minutes, the body just enters a deep relaxation state, and the parasympathetic nerve activity is enhanced, effectively alleviating fatigue [27]. The human body's energy field can also absorb and integrate Reiki energy at the best rhythm to achieve balance [28–29]. Individuals can still maintain a high level of attention and positive psychological expectations and fully exert the therapeutic effect. The intervention period was controlled at 4 weeks (SMD = -1.68), and the effect of Reiki in treating fatigue was the most significant. Furthermore, the regimen involving 8–12 courses of treatment (SMD = -1.62) was more effective than the shorter interventions of 3–5 courses of treatment (SMD = -1.55) and 7 courses of treatment (SMD = -1.10), indicating that multiple treatments might be required to achieve the best outcome. In a study by Buyukbayram et al., the impact of Reiki therapy on fatigue and anxiety in hemodialysis patients was explored. The subjects were randomly

divided into the Reiki group and the non-intervention control group, with 30 participants in each group [30]. Non-contact Reiki therapy was administered for 4 weeks, once a day, each session lasting 30 to 35 minutes. It can be concluded that Reiki therapy is effective in reducing the fatigue and anxiety levels of hemodialysis patients. It is worth noting that the therapeutic effect of the offline intervention method of Reiki therapy (SMD=-1.65) is significantly better than that of the online (SMD=-1.41) and the combined online and offline intervention (SMD=-1.10). During offline therapy, the therapist and the patient are in the same room and can directly perceive the patient's energy field. The Reiki master in offline therapy can intuitively detect the energy block area and precisely guide the energy, which is impossible in online therapy [31].

In conclusion, these research results indicate that Reiki therapy, as an auxiliary intervention measure with non-invasive characteristics, few side effects, and potential advantages, can be widely applied in the fatigue treatment of different populations. The key factors affecting its clinical efficacy are the treatment duration, cycle, total number of sessions and intervention methods of Reiki therapy. The overall approach of this therapy may address the multifactorial nature of fatigue more comprehensively than individual drug interventions. Healthcare professionals are advised to integrate Reiki into the holistic treatment regimen for patients experiencing pronounced fatigue.

Limitations

The number of articles included in this study was limited, the quality of the literature was moderate, the assessment tools for outcome measures were different, and some data could not be converted into group analysis, resulting in a limited number of articles for meta-analysis. The intervention plan, outcome measurement and patient population have certain variability. Many studies have small sample sizes, lack strict blinding procedures, and have a relatively small number of subgroup studies, which may lead to publication bias. Most trials focus on short-term results, which makes the persistence of the effect uncertain. Furthermore, the research population was all from Turkey. This may lead to the research results being strongly influenced by the specific cultural, social and medical environment of Turkey, severely limiting the universality of these results in other ethnic groups, cultures and the global medical environment. Therefore, future research needs to adopt standardized protocols with large samples and long-term follow-up for people in different regions to determine the therapeutic effect of Reiki and the optimal implementation parameters.

Conclusions

The results of this meta-analysis indicate that Reiki therapy can effectively reduce the degree of fatigue. Subgroup analysis indicated that offline Reiki therapy with an intervention period of 4 weeks, a duration of 20–30 minutes, and a total of 8–12 intervention times could effectively relieve fatigue in cancer patients, those with chronic diseases, and normal healthy adults. Most of the existing studies are short-term observations, with limited sample sizes and differences in intervention details. The long-term effectiveness of this therapy and the optimal intervention plan have not been fully verified. Therefore,

further high-quality research on people from different regions is needed to optimize the plan and confirm its long-term benefits.

Declarations

Clinical trial number

Not applicable.

Ethics approval and consent to participate

Not applicable.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

Informed consent

Not applicable.

Consent to participate

Not applicable.

Funding Statement

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Author Contribution

Jiao Chen wrote the main manuscript text, Jiao Chen, Hongyue He and Lixin Liu prepared the figures. All authors have reviewed the manuscript.

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Tables

Table 1
Characteristics of the studies in the systematic review and meta-analysis

Author/Year	Author's country	Sample size(T/C)	Age range	Subject type	Intervention design (T/C)	Exercise prescription	Evaluation tools/content
Buyukbayram, 2021 [17]	Turkey	60\60	50.18±13.87	Cancer patient	Reiki/Control group	25-30min\times,1\day, 3days	PFS
Demir,2015 [18]	Turkey	8\10	38.62±19.50	Cancer patient	Reiki/Control group	30min\times,1\days, 5days	NRS
Karaman,2023 [19]	Turkey	35\35	25-65	Cancer patient	Reiki/Control group	42min\times,1\day, 6dys	PFS
Aslan,2023 [20]	Turkey	35\33	≥19	Chronically ill	Reiki/Control group	30min\times,1-2\week, 4weeks	PFS
Bayülgen,2023 [21]	Turkey	31\31	53.55±5.15	Chronically ill	Reiki/Control group	36-40min\times,3\week 4weeks	FSS
Utli,2023 [22]	Turkey	52\52	>18	Cancer patient	Reiki/Control group	20min\times,2\week, 4weeks	BFI
Turan,2024 [23]	Turkey	30\30	>18	Chronically ill	Reiki/Control group	20-30min\times,7times, 3weeks	PFS
Akin,2025 [24]	Turkey	37\37	>18	Chronically ill	Reiki/Control group	40min\times,2\week, 3weeks	PFS

Notes: Intervention Group (T); Control Group (C); Piper Fatigue Scale (PFS); Fatigue Severity Scale (FSS); Brief Fatigue Inventory BFI); Numeric Rating Scale (NRS);

Table 2
Static subgroup results analysis table

Feature	Category	Number of literature	Effect	95%CI	P	I ²	Effect model
Subject type	Cancer patient	3	-1.65	-1.94, -1.36	< 0.01	0%	Fix
	Chronically ill	3	-1.37	-1.69, -1.06	< 0.01	0%	Fix
Exercise times (minutes)	20-30	4	-1.53	-1.79, -1.27	< 0.01	33%	Fix
	36-40	2	-1.51	-1.89, -1.12	< 0.01	0%	Fix
Total number of interventions	3-5	2	-1.55	-1.93, -1.17	< 0.01	0%	Fix
	7	1	-1.10	-1.64, -0.55	< 0.01	0%	Fix
	8-12	3	-1.62	-1.92, -1.33	< 0.01	0%	Fix
	<1	2	-1.55	-1.93, -1.17	< 0.01	0%	Fix
Intervention time	3	1	-1.10	-1.64, -0.55	< 0.01	0%	Fix
	4	2	-1.68	-2.04, -1.32	< 0.01	0%	Fix
	5	1	-1.51	-2.02, -0.99	< 0.01	0%	Fix
	offline	3	-1.65	-1.91, -1.38	< 0.01	0%	Fix
Intervention method	online	2	-1.41	-1.91, -0.92	< 0.01	0%	Fix
	combination of online and offline	1	-1.10	-1.64, -0.55	< 0.01	0%	Fix

Table 3
Sensitive analysis table

Exclude the literature	Remaining number of literature	I ²	Effect model	SMD and 95%CI	P
Buyukbayram, 2021 [17]	6	96%	Random	-1.83 [-2.07, -1.58]	<0.01
Demir,2015 [18]	6	96%	Random	-1.80 [-2.02, -1.59]	<0.01
Karaman,2023 [19]	6	94%	Random	-1.62 [-1.83, -1.41]	<0.01
Aslan,2023 [20]	6	89%	Random	-1.68 [-1.89, -1.47]	<0.01
Bayülgen,2023 [21]	6	96%	Random	-1.82 [-2.04, -1.59]	<0.01
Utlı,2023 [22]	6	96%	Random	-1.77 [-2.00, -1.53]	<0.01
Turan,2024 [23]	6	96%	Random	-1.89 [-2.12, -1.66]	<0.01
Akin,2025 [24]	6	96%	Random	-1.83 [-2.06, -1.60]	<0.01

Figures

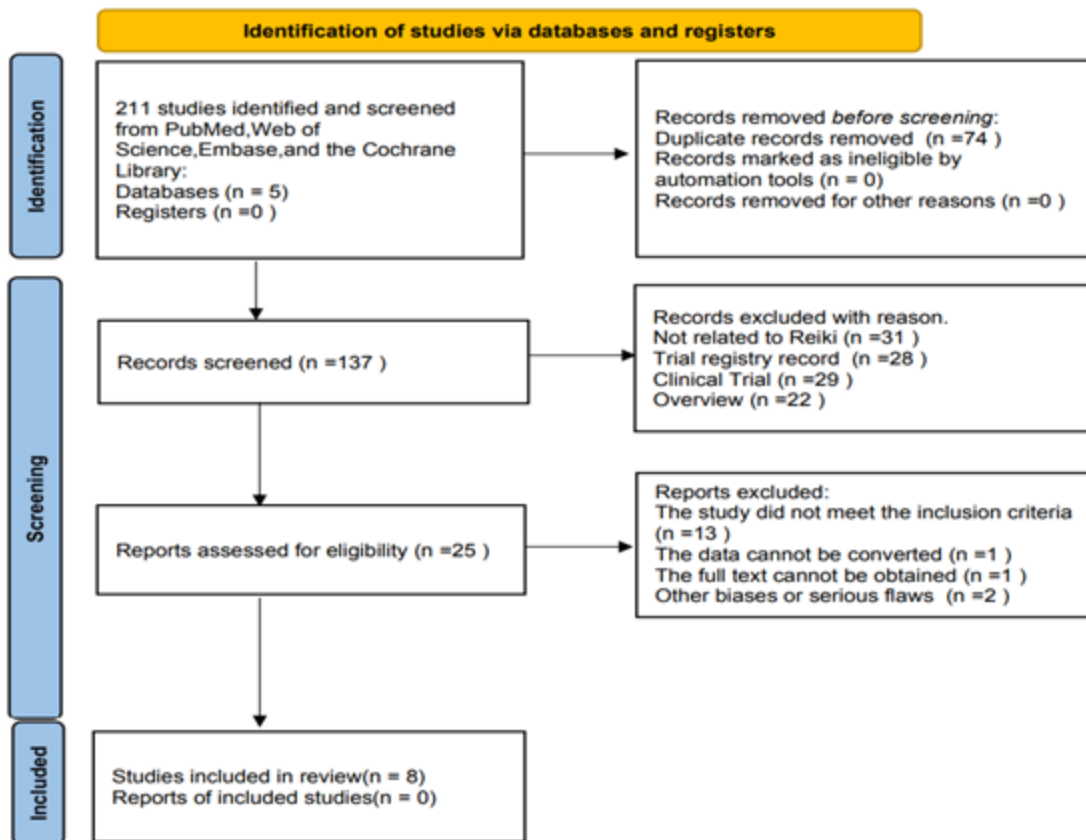


Figure 1

Flow diagram of the selection process

	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)	Other bias
Akin et al 2025	+	?	-	+	+	+	+
Aslan et al 2023	+	?	?	-	+	+	+
Bayülgen et al 2023	+	+	-	+	+	+	+
Buyukbayram et al 2021	-	?	?	?	+	+	-
Demir et al 2015	?	?	?	+	+	+	+
Karaman et al 2021	?	?	?	?	+	+	+
Turan et al 2024	+	?	-	+	+	+	+
Utlü et al 2023	+	?	-	+	+	+	+

Figure 2

Risk of bias summary

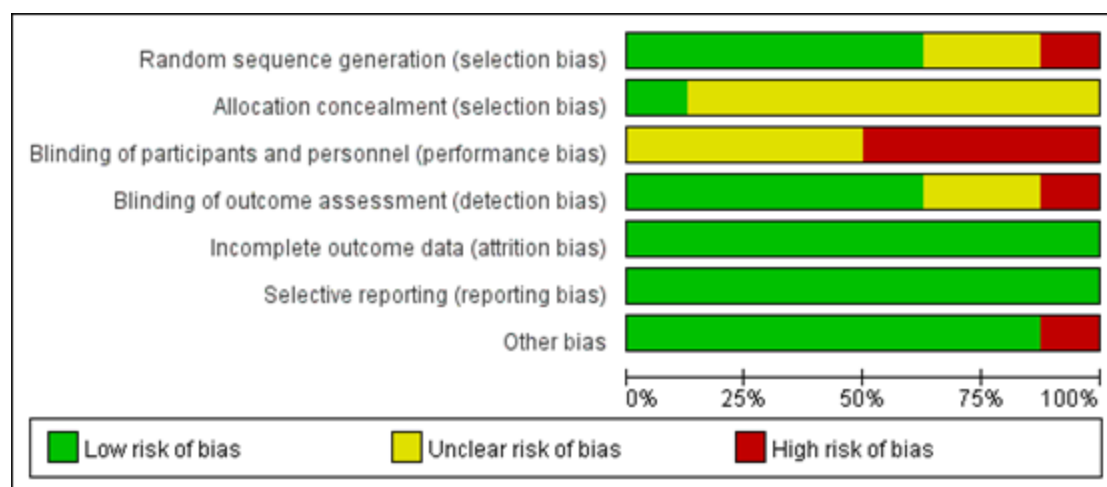


Figure 3

Risk of bias graph

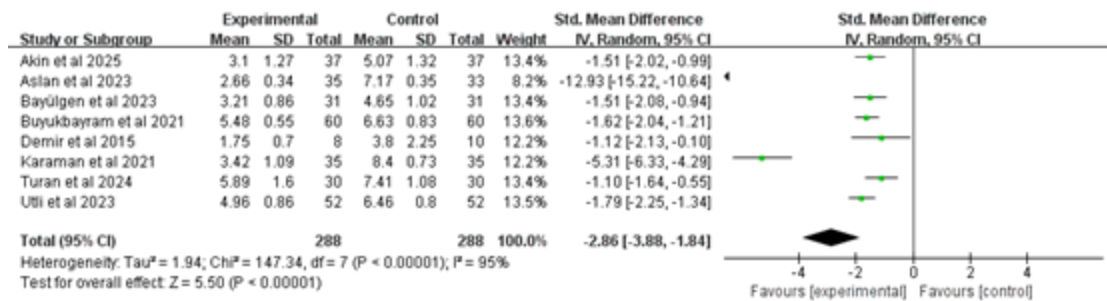


Figure 4

Forest map of fatigue with Reiki therapy

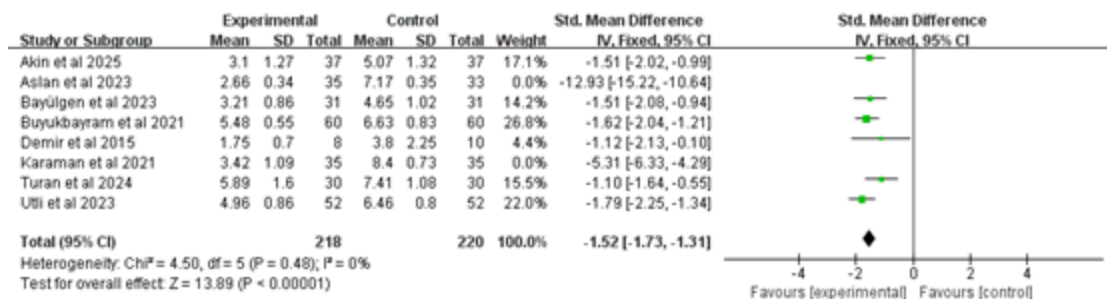


Figure 5

Heterogeneous forest map of Reiki in treating fatigue