Article

Efficacy of Yoga in Reducing Depressive Symptoms: A Systematic Review*

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Theme: Health promotion, well-being, and quality of life

Contributions to the field: Depression is one of the most prevalent and debilitating mental illnesses worldwide. Therefore, any non-pharmacological approach that proves to be effective and safe to be complementary to treatment has significant public health implications. This study provides a solid basis for considering Yoga as part of an array of therapeutic options.

Abstract

Introduction: The fast pace of changes in contemporary life increases the need to adapt, which leads to depressive pathologies due to psychological suffering. Yoga has therefore emerged as a complementary approach to the treatment of depression. **Objective:** To analyze the efficacy of yoga in reducing depressive symptoms. **Materials and methods:** This is a systematic literature review, which followed the Joanna Briggs Institute methodology for systematic reviews of efficacy, with the review protocol registered on Prospero under the code CRD42023448158. To devise the research question, the Pico strategy was adopted, in which "P" stands for people with depression, "I" for yoga; "C" for people who have not been submitted to yoga, and "O" for improvement/reduction of depressive symptoms. The requirements of the Prisma flowchart were followed and the search was conducted in the Medline/PubMed, Web of Science, Lilacs, BDEnf, Ibecs, PsycINFO, and Cinahl databases. The Jadad scale was used to assess methodological quality and the Cochrane Risk of Bias 2 to assess the risk of bias. **Results:** A total of 1138 studies were found, of which 10 were selected for data extraction, detailed reading, and qualitative synthesis. Yoga, especially mindfulness yoga, has been shown to be an effective intervention for various conditions, including depression. Its benefits include significant improvements in depression severity, health-related quality of life, motor dysfunction, mobility, spiritual well-being, and parasympathetic nervous system activity. **Conclusion:** The studies highlight the efficacy of yoga in reducing depressive symptoms in various populations and contexts, highlighting its effectiveness as a complementary therapeutic approach in the management of depression.

Keywords (Source: DeCS)
Depression; depressive disorder; yoga; treatment outcome; complementary therapies.

La eficacia del yoga en la reducción de los síntomas depresivos: una revisión sistemática*

* El artículo es derivado de monografía titulada "Eficácia do yoga na redução de sintomas depressivos: revisão sistemática", presentada como requisito para graduarse en Enfermería en la Universidade Federal do Piauí, Brasil, en 2023.

Resumen

Introducción: El ritmo acelerado de los cambios en la vida contemporánea aumenta la demanda de adaptación, lo que conduce a patologías depresivas debidas al malestar psicológico. Por ello, el yoga ha surgido como un enfoque complementario para el tratamiento de la depresión. Objetivo: Analizar la eficacia del yoga en la reducción de los síntomas depresivos. **Materiales y método**: revisión sistemática de la literatura, que siguió la metodología del Joanna Briggs Institute para revisiones sistemáticas de efectividad, y el protocolo de revisión se registró en Prospero con el código CRD42023448158. Para formular la pregunta de investigación, se adoptó la estrategia Pico, en la que "P" son personas con depresión; "I", Yoga; "C", personas que no han realizado Yoga; "O", mejora/reducción de los síntomas depresivos. Se siguieron los requisitos del diagrama de flujo de Prisma y la búsqueda se realizó en las bases de datos Medline/PubMed, Web of Science, Lilacs, BDEnf, Ibecs, PsycINFO y Cinahl. Se utilizó la escala Jadad para evaluar la calidad metodológica y la Cochrane Risk of Bias 2 para evaluar el riesgo de sesgo. Resultados: Se identificaron 1138 estudios, de los cuales se seleccionaron 10 para la extracción de datos, la lectura detallada y la síntesis cualitativa. El yoga, especialmente el mindfulness yoga, ha demostrado ser una intervención eficaz para diversas condiciones, incluida la depresión. Los beneficios incluyen mejoras significativas en la gravedad de la depresión, la calidad de vida relacionada con la salud, la disfunción motora, la movilidad, el bienestar espiritual y la actividad del sistema nervioso parasimpático. Conclusión: Los estudios destacan la eficacia del yoga en la reducción de los síntomas depresivos en diferentes poblaciones y contextos, reforzando su eficacia como enfoque terapéutico complementario en el tratamiento de la depresión.

Palabras clave (DeCS)
Depresión; trastorno depresivo; yoga; resultado del tratamiento; terapias complementarias.

Eficácia do yoga na redução de sintomas depressivos: revisão sistemática*

* Este artigo é proveniente do trabalho de conclusão de curso intitulado "Eficácia do yoga na redução de sintomas depressivos: revisão sistemática", apresentado como requisito para obter o grau de bacharel em Enfermagem na Universidade Federal do Piauí, Brasil, em 2023.

Resumo

Introdução: O ritmo acelerado das mudanças na vida contemporânea aumenta a demanda por adaptação, o que leva a patologias depressivas devido ao sofrimento psíquico. Portanto, o *yoga* emerge como abordagem complementar ao tratamento da depressão. **Objetivo:** analisar a eficácia do *yoga* na redução dos sintomas depressivos. **Materiais e método:** revisão sistemática da literatura, a qual seguiu a metodologia do Joanna Briggs Institute para revisões sistemáticas de eficácia, e o protocolo da revisão foi registrado na Prospero com o código CRD42023448158. Para formular a questão de pesquisa, adotou-se a estratégia Pico, no em que "P" são pessoas com depressão; "I", *yoga*; "C", pessoas que não foram submetidas a *yoga*; "O", melhora/redução dos sintomas depressivos. Foram seguidos os requisitos do fluxograma Prisma e a busca foi realizada nas bases de dados Medline/PubMed, Web of Science, Lilacs, BDEnf, Ibecs, PsycINFO e Cinahl. Aplicou-se a escala de Jadad para a avaliação da qualidade metodológica e a Cochrane Risk of Bias 2 para a avaliação do risco de viés. **Resultados:** foram identificados 1138 estudos, dos quais 10 foram selecionados para a extração de dados, para a leitura detalhada e para a síntese qualitativa. O *yoga*, especialmente o *mindfulness yoga*, demonstrou ser intervenção eficaz para várias condições, incluindo a depressão. Os benefícios incluem melhorias significativas na gravidade da depressão, na qualidade de vida relacionada à saúde, na disfunção motora, na mobilidade, no bem-estar espiritual e na atividade do sistema nervoso parassimpático. **Conclusão:** Os estudos destacam a eficácia do *yoga* na redução dos sintomas depressivos em diferentes populações e contextos, reforçando sua eficácia como abordagem terapêutica complementar na gestão da depressão.

Palavras-chave (Fonte DeCS)
Depressão; transtorno depressivo; *yoga*; resultado do tratamento; terapias complementares.

Introduction

Life takes place in a context of fast and continuous change in various aspects. As a result, there is an increased demand for ways of (re) adapting, which results in depressive pathologies due to the psychological suffering caused (1, 2). According to estimates from the 2021 Global Burden of Disease study, among the global population, more than one billion people were living with a mental disorder, of which 357 million were living with depression (3).

Depression presents concerning data in Brazil, according to a Brazilian study that shows an increase in its incidence. The Surveillance of Risk and Protective Factors for Chronic Diseases Telephone Survey (Vigitel), conducted in 2021, found that an average of 11.3 % of Brazilians reported having received a medical diagnosis of the disease, with a higher incidence among women (14.7 %) compared to men (7.3 %) (4).

In addition, this illness is a public health problem with a significant prevalence in various populations. Recent data indicates the odds of receiving a medical diagnosis of depression are higher among urban residents, women, people aged from 40 to 69, white individuals, those with lower levels of education, separated or divorced, current smokers, "heavy" screen users, as well as individuals who have reported medical diagnoses of physical and mental disorders (5-7).

The clinical picture of this illness requires complex therapeutic management. It can be achieved through pharmacological therapies and a combination of other non-pharmacological therapies, such as integrative and complementary health practices (ICHP). Health interventions must consider individuals in their multiple dimensions, with their choices, values, desires, anxieties, and fears. Thus, it is possible to promote the recovery and maintenance of patients' health throughout the treatment (8).

To implement integrative and complementary health measures within the Brazilian Unified Health System, the National Policy for Integrative and Complementary Practices was published by the Minister's Office-Ministry of Health Ordinance 971 on May 3, 2006 (9). These include traditional Chinese medicine/acupuncture, homeopathy, medicinal plants and phytotherapy, meditation, music therapy, reiki, yoga, and aromatherapy, among others (10).

Yoga, which is covered by ICHP, is a multidimensional system of health and well-being that interconnects mind and body during its performance; it is a practice that articulates physical postures and movements, aligned with breathing exercises and relaxation. It is worth mentioning that during the exercise, meditation can be associated with a way of perceiving feelings and sensations (11).

In addition, it is a practice that offers health benefits, such as physical, philosophical, and social contributions. Some of these include encouraging healthier diets and body awareness, developing con-

templative capacity, and promoting a peaceful culture and healthy lifestyles. Yoga philosophy has a clear relationship with health promotion, offering forms of care for chronic conditions related to physical and psychological factors (12).

Despite the promising results reported in previous reviews, it is still necessary to conduct a broader review that addresses the variability of yoga practices. In light of this and given the impact on the quality of life of people with depression, as well as the viability of ICHP as a complementary treatment, the present study aims to analyze the scientific evidence available in databases on the efficacy of yoga in reducing depressive symptoms.

Materials and Methods

The present study consists of a systematic literature review. The review was conducted in line with the Joanna Briggs Institute (JBI) methodology for systematic reviews on efficacy (13). The protocol for this systematic review was approved via Prospero under registration CRD42023448158.

According to the JBI, eight stages must be followed to conduct a systematic literature review of any type of evidence: I. development of the research question; II. definition of inclusion and exclusion criteria; III. literature search; IV study selection; V. assessment of methodological quality; VI. data extraction; VII analysis and synthesis; VIII presentation and interpretation of the results (14).

The design of the research question is essential when starting a systematic review, as it defines the focus of the study. In this case, it was accomplished through the "PICO" strategy: P — population; I — intervention; C — comparison; O — outcomes (15), where "P" stands for people with depression, "I" for yoga, "C" for people who have not been submitted to yoga, and "O" for improvement/reduction of depressive symptoms. Thus, the following question was devised: What is the efficacy of yoga in reducing depressive symptoms?

Primary studies with a randomized clinical trial (RCT) design were included, in which any variation of yoga was adopted as a practice for reducing depressive symptoms, of both sexes, of any age, with no defined time frame, published in any language. Literature reviews, editorials, case studies, letters to the editor, dissertations, theses, incomplete studies, gray literature, and studies that failed to answer the research question were excluded.

The following databases were used to conduct the bibliographic search: Medical Literature Analysis and Retrieval System Online/PubMed (Medline); Web Of Science (WOS); Latin American and Caribbean Health Sciences Literature (Lilacs), via the Virtual Health Library (VHL); Nursing Database (BDEnf), via the VHL; Spanish

Bibliographic Index of Health Sciences (Ibecs), also via the VHL; American Psychological Association (APA); PsycINFO and Cumulative Index to Nursing and Allied Health Literature (Cinahl)/EBSCO.

Along with the databases mentioned above, a secondary search was conducted on Google Scholar. The reference lists of all the evidence sources included were also examined manually to find relevant studies that could be added.

To integrate the search strategy for the studies, controlled descriptors (indexed in the respective databases) were selected using the *Descritores em Ciências da Saúde* (DeCS): *depressão*, depression, *depresión*, *transtorno depressivo*, depressive disorder, *trastorno depresivo*, yoga; from the Medical Subject Headings (MeSH terms): depression, depressive disorder, yoga, treatment outcome; from the APA thesaurus: depression, major depression, yoga, treatment outcome; from Cinahl Subjects: depression, yoga, treatment outcome; and from alternative terms: *sintomas depressivos*, depressive symptoms.

With the aim of broadening the search strategy, controlled and non-controlled descriptors were combined using the Boolean operators AND and OR. Table 1 shows the final search strategy used in the various databases.

Table 1. Search Strategy Used in the Databases Searched

Database	Search Strategy
Medline/PubMed	(((Depression) OR ("Depressive disorder")) AND (*Yoga*)) AND (Treatment Outcome)
Web of Science	((((ALL=(Depression)) OR ALL=(Depressive Disorder)) OR ALL=(Depressive Symptom)) AND (ALL=(*Yoga*))) AND (ALL=(Treatment Outcome))
BVS (Lilacs, BDEnf, and Ibecs)	((Depressão) OR (Depression) OR (Depresión) OR (Transtorno Depressivo) OR (Depressive Disorder) OR (Trastorno Depresivo) OR (Sintomas Depressivos)) AND (*Yoga*)
PsycINFO	Any Field: Depression *OR* Any Field: Major Depression *AND* Any Field: *Yoga AND* Any Field: Treatment Outcomes
Cinahl/Ebsco	Depression AND *Yoga* AND Treatment Outcome

Source: Prepared by the authors.

After conducting the literature search, the articles were exported to the bibliographic software EndNote (https://www.myendnoteweb.com/) to exclude duplicates. Subsequently, the studies were exported to the Rayyan selection platform (https://www.rayyan.ai/) to select and identify the studies.

Two reviewers participated independently in the process during August 2024, and any disagreements were settled through discussion. The research results were presented in line with the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses — Prisma flowchart (16).

After the selection of eligible articles, the methodological quality of the studies was assessed. The Jadad Scale was used (17), which is a questionnaire consisting of five questions. The score ranges from zero to five, where studies with a score lower than three are considered to be low quality and studies with a score equal to or above three are classified as high quality.

The level of bias was assessed using the Cochrane Collaboration's Risk of Bias 2 (RoB 2) tool. This tool was developed to assess RCTs and covers five domains: Bias in the randomization process; bias due to deviations from the intended interventions; bias due to missing outcome data; bias in the measurement of outcomes; and bias in the selection of reported results. Assessment with RoB 2 consists of answering specific questions within each domain (18).

The data were extracted and compiled by two independent reviewers, using an adapted instrument based on a previous study (19), in the Microsoft® Word program. The following information was extracted: Authors, publication year, sample, intervention, control group, and main results.

Finally, a descriptive analysis and synthesis of the articles selected to comprise this review were performed, which were discussed in the light of the existing literature.

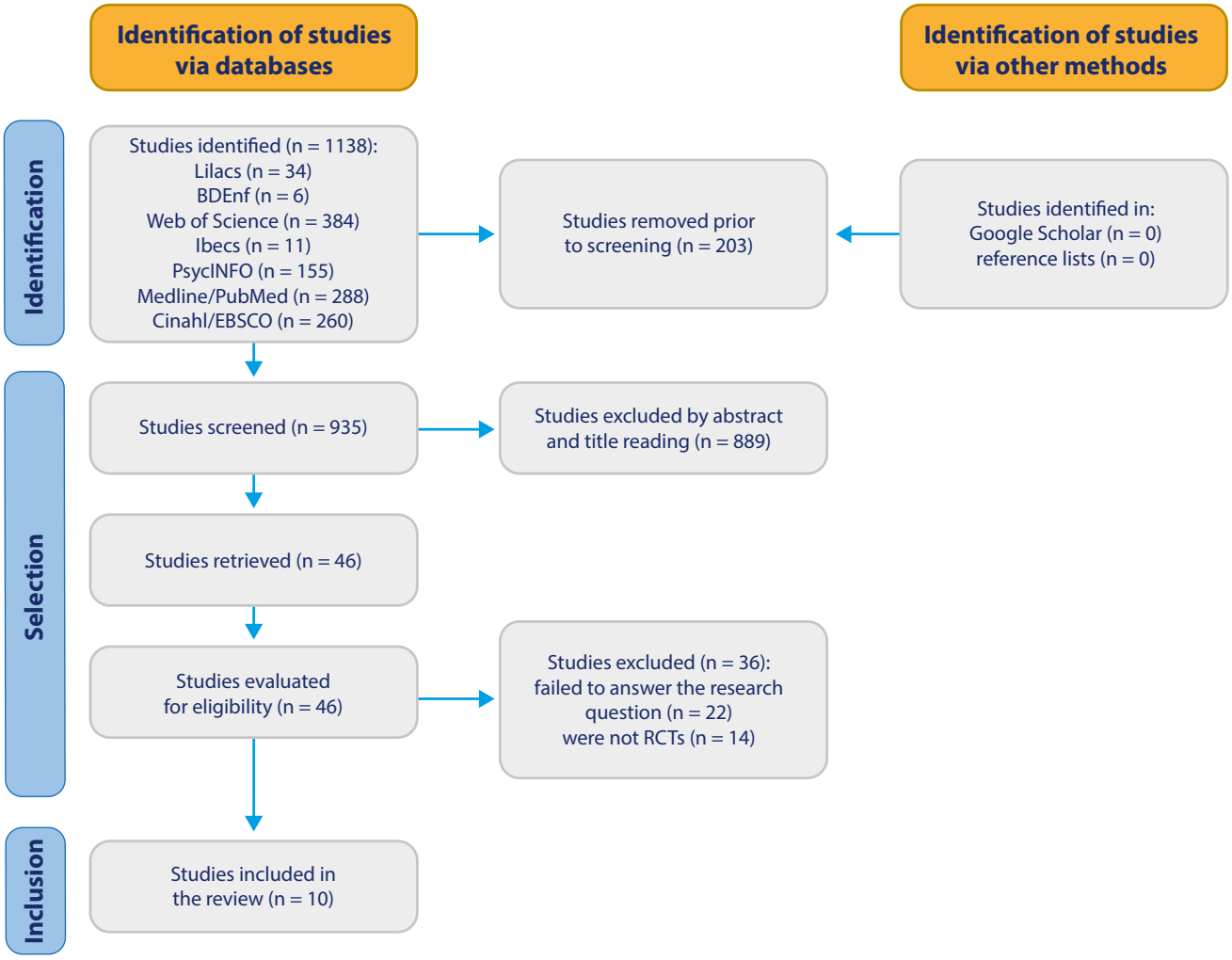
Results

The database search yielded 1138 studies, and no additional studies were included after searching Google Scholar and the reference lists of the included evidence. After removing duplicates (203), 935 eligible studies remained for analysis of their titles and abstracts, at which point 889 were excluded for potentially not fitting the eligibility criteria.

Afterward, 46 records were submitted for critical evaluation, which led to the exclusion of 36 of them. Of those excluded, 14 were not RCTs and 22 failed to answer the research question. As a result, only 10 records met all the inclusion criteria and were selected for the data extraction, detailed reading, and qualitative synthesis stage. The flow of the search process is shown in Figure 1, following the guidelines of the Prisma flowchart (16).

Table 2 presents a summary of the main properties of the studies included in the qualitative analysis. The publication years of the studies ranged from 2015 to 2023. In terms of the participants' composition, five studies included only women, mostly due to the associated condition being inherent to the female sex, while the other half included both sexes. The mean number of participants in the study samples was 79, with a minimum of 20 and a maximum of 138.

Figure 1. Study Selection Flowchart, in line with the Prisma guidelines



Source: Prepared by the authors.

Table 2. Description of the articles included

Authors (Publication Year)	Sample	Intervention	Control group	Main Results
Uebelacker et al. (2023) (20)	42 adolescents with severe symptoms of depression	Yoga	The yoga intervention included an initial personal guidance meeting between the yoga teacher and the participant and then a weekly 45-minute class for 12 weeks.	The study demonstrated the acceptability and viability of yoga as an intervention for adolescents with symptoms of depression.
Liu et al. (2022) (21)	136 women diagnosed with breast cancer	Mindfulness yoga	90 minutes of weekly practice over eight weeks: the first stage consists of mindfulness meditation (20 minutes); the second stage of mindfulness yoga postures followed by mindfulness breathing guidance (50 minutes); the third stage of mindfulness yoga body scanning (10 minutes); and the fourth stage of sensory summarization and questions and answers (10 minutes).	The group that received mindfulness yoga combined with conventional care had better results than the control group, especially in terms of anxiety, depression, and health-related quality of life.

Authors (Publication Year)	Sample	Intervention	Control group	Main Results
Bieber et al. (2021) (22)	83 participants with major depressive disorder	Yoga	The yoga classes lasted 90 minutes each and were held three times a week for 12 weeks in groups of 10 to 12 patients.	In the yoga group, there was a significant improvement in the remission rates of depression severity compared to the control group.
Huberty et al. (2020) (23)	90 women who experienced stillbirths	Hatha yoga	The intervention groups (low-dose intervention = 60 minutes/week of yoga; moderate-dose intervention = 150 minutes/week of yoga) were guided by a 12-week online yoga prescription developed by the research team.	After the intervention, a significant reduction was found in the symptoms of post-traumatic stress disorder and depression, as well as an improvement in self-rated health.
Sharma et al. (2020) (24)	66 patients with heart disease	Yoga	A one-hour supervised yoga module consisting of asanas (physical postures), pranayama (breathing techniques), and relaxation techniques performed three times a week for 12 weeks.	The addition of yoga to cardiac rehabilitation reduces depression and anxiety, improving patients' quality of life.
Kwok et al. (2019) (25)	138 adults diagnosed with Parkinson's disease (PD)	Mindfulness yoga	The group received a weekly 90-minute session of mindfulness yoga for PD for eight weeks.	Mindfulness yoga is effective in improving motor dysfunction and mobility in patients with mild to moderate PD. It also offers additional benefits, such as reducing anxiety and depressive symptoms, and increasing spiritual well-being.
Kumar et al. (2019) (26)	80 patients with major depressive disorder	Yoga	20 supervised yoga sessions, comprising five sessions a week, each lasting 45 minutes.	The group that practiced yoga showed a significant reduction in depression scores and a notable clinical improvement compared to the control group.
Chu et al. (2017) (27)	26 sedentary women with a score ≥ 14 on the Beck Depression Inventory-II	Yoga	The yoga module lasted 12 weeks, held twice a week for 60 minutes per session, and consisted of breathing exercises, practicing yoga postures, and supine meditation/relaxation.	The intervention demonstrated efficacy by increasing the activity of the parasympathetic nervous system and reducing symptoms of depression and perceived stress in women with significant depressive symptoms.
Buttner et al. (2015) (28)	57 women with postpartum depression	Gentle vinyasa flow yoga	The intervention consisted of a total of 16 one-hour yoga classes held over eight weeks.	The yoga group showed significantly greater improvement in depression, anxiety, and health-related quality of life compared to the control group, with moderate to large effects.
Yagli, Ulger (2015) (29)	20 female breast cancer patients	Yoga	Each session was held for one hour a week for eight weeks and included warm-up and breathing exercises (15 minutes), asanas (15 minutes), relaxation and meditation in the supine position (30 minutes).	Statistically significant differences were found in depression, pain, fatigue, and sleep quality between the groups, both before and after the intervention.

Source: Prepared by the authors.

Analysis of the table reveals several significant trends. First, the efficacy of yoga in diverse populations can be noted, ranging from adolescents with symptoms of depression (20), breast cancer patients (21, 29), women who have suffered stillbirths (23), heart disease patients (24), adults with PD (25), to women with postpartum depression (29). In addition, beyond the studies that used traditional yoga as an intervention, other studies covered various forms of yoga, such as hatha yoga (23), mindfulness yoga (21, 25) and gentle vinyasa flow yoga (28). In all the studies, the groups that practiced yoga demonstrated acceptability, viability, and improved results.

When analyzing the methodological quality of the RCTs, it can be noted that most of them have flaws in the study's blinding, which may be directly related to the nature of the intervention applied, as is the case with yoga. Using the Jadad Scale as an evaluation criterion, eight studies were considered to be of high quality, while two were classified as low quality. These two low-quality studies were deficient in adequate blinding and in reporting losses and exclusions (Table 3).

Table 3. Methodological Quality Analysis with the Jadad Scale

	Was the study described as randomized?	Was the randomization method adequate?	Was the study described as double-blind?	Was the blinding method adequate?	Were losses and exclusions described?	Total score
Studies	**Questions**					
Uebelacker et al., 2023 (20)	1	1	0	0	1	3
Liu et al., 2022 (21)	1	1	1	-1	1	3
Bieber et al., 2021 (22)	1	1	1	-1	1	3
Huberty et al., 2020 (23)	1	1	0	0	1	3
Sharma et al., 2020 (24)	1	1	0	0	1	3
Kwok et al., 2019 (25)	1	1	1	1	1	5
Kumar et al., 2019 (26)	1	1	0	0	0	2
Chu et al., 2017 (27)	1	1	0	0	1	3
Buttner et al., 2015 (28)	1	1	0	0	1	3
Yagli, Ulger, 2015 (29)	1	1	0	0	0	2

Source: Prepared by the authors.

Regarding the risk of bias, which was assessed using the RoB 2 tool, three studies were classified as having a low risk of bias, three as having a high risk of bias, and four presented some suspicions (Table 4). It is worth noting that, in some cases, the specific properties of the interventions used hindered the blinding of the professionals providing the treatment and there were withdrawals from therapy during the course of the studies, which may have influenced the assessment of the risk of bias in these clinical trials.

Table 4. Risk of Bias Assessment of Randomized Clinical Trials in Each Domain of the Cochrane Collaboration's RoB 2 tool

	Randomization process	Deviations from intended interventions	Lack of outcome data	Outcome measurement	Selection of the reported result	Global risk of bias
Studies	**Risk of bias domain**					
Uebelacker et al., 2023 (20)	+	?	+	-	+	-
Liu et al., 2022 (21)	+	?	+	+	+	?
Bieber et al., 2021 (22)	+	+	+	+	+	+
Huberty et al., 2020 (23)	+	?	+	?	+	?
Sharma et al., 2020 (24)	+	+	+	+	+	+
Kwok et al., 2019 (25)	+	?	?	+	+	?
Kumar et al., 2019 (26)	?	?	+	-	-	-
Chu et al., 2017 (27)	?	+	+	+	+	?
Buttner et al., 2015 (28)	+	+	+	+	+	+
Yagli, Ulger, 2015 (29)	?	-	?	?	+	-

The plus symbol (+) indicates a low risk of bias; the minus symbol (-) indicates a high risk of bias; the question mark (?) indicates some suspicions.

Source: Prepared by the authors.

The yoga intervention has a particularity that makes it difficult to conceal it from participants who are receiving the treatment. Its active practice and patients' participation in the exercise routine also make the blinding process difficult. In addition, differences in expectations between participants can emerge, as each may have different opinions about the benefits of yoga compared to other interventions, which can influence their perceptions and responses to treatments.

Discussion

This study provides a significant contribution to the advancement of knowledge in the field of complementary health therapies. Analyzing various studies, a consistently positive effect of yoga in reducing depressive symptoms was found in different populations and settings. These results highlight its effectiveness as a complementary therapeutic approach in the management of depression.

Yoga practice, which combines breathing, physical postures and meditation, has been widely recognized and used for decades as an effective way to reduce stress and promote general health. Studies and case reports have shown that yoga can have positive effects on reducing symptoms of post-traumatic stress disorder (PTSD), anxiety, and depression in various populations (30, 31). Yoga has also been shown to be a valuable complementary approach to reducing stress during pregnancy and aiding in the prevention and treatment of postpartum depression (28, 32, 33).

Although there is still uncertainty surrounding the exact mechanism by which yoga reduces the symptoms of PTSD, anxiety, and depression, it is possible to attribute these benefits, at least in part, to improvements in mindfulness, emotional regulation, self-compassion, and sleep quality. By cultivating mindfulness, yoga offers a way of directing attention and increasing awareness of the mind and body. This improvement in mindfulness can increase acceptance of one's emotions, improve emotional regulation, and reduce avoidance. Additionally, yoga can help raise awareness of negative beliefs about oneself, such as self-criticism, and promote the practice of self-compassion (34, 35).

Joint yoga therapy has been widely studied as a complementary approach to the treatment of depressive disorders. A clinical trial with patients diagnosed with major depressive disorder found participants in the yoga therapy group showed a significantly greater reduction in levels of depression. Furthermore, they showed notable clinical improvements when compared to the control group. These results suggest that this practice can have a relevant role as joint therapy in the treatment of depressive disorders, contributing to a significant improvement in symptoms and, consequently, in patients' quality of life (26).

Another study (22) conducted with individuals diagnosed with major depressive disorder showed that yoga practice can be an effective intervention. Moreover, its regular practice demonstrated significant improvements in symptoms of depression, with participants in the yoga group showing a more pronounced reduction in the severity of depression compared to the control group. A crucial point raised by the researchers was the need for constant motivation and a certain level of energy and skills in daily activities, which are often limited in the presence of depression.

Currently, the incidence of depression is alarming, affecting more than 300 million people worldwide. It is worth noting that from adolescence onwards, women are twice as likely to develop depression than men. The disease also tends to emerge in a more intense form in women (36-38). Given this scenario, it is extremely important for women to seek effective strategies to deal with depressive symptoms and improve their psychological well-being to achieve and maintain a satisfactory quality of life.

Online yoga practice has proven to be a promising tool for reducing PTSD and depression in women who have undergone the devastating experience of maternal death. By practicing yoga in this modality, women have the flexibility to adapt classes to their pace and individual needs, allowing for a personalized approach to healing and the trauma recovery process. Online yoga thus emerges as a valuable therapeutic tool to assist the healing process and rebuild emotional balance (23).

In turn, the effect of mindfulness yoga has been studied in women with early breast cancer who also suffer from depression (21). Studies have revealed a strong correlation between the presence of depression and decreased quality of life in patients with this diagnosis (39-42). Mindfulness yoga combines the benefits of yoga, which includes physical postures, breathing, and meditation, with the practice of mindfulness, which focuses on full awareness of the present moment (21, 43).

This integrated approach using mindfulness yoga has been shown to be a complementary strategy to conventional treatment for depression in patients with early breast cancer, providing a holistic care perspective and strengthening mental health during the healing process (21). Isolated yoga practice has also been shown to be valuable in reducing depression, pain, and fatigue, as well as helping women with breast cancer to perform their daily and routine activities (29, 44, 45).

Added to this, a study (27) shows that regular yoga practice has been shown to be beneficial for women in terms of improving heart rate variability and relieving depressive symptoms. The study indicates that yoga can be recommended as an effective strategy for addressing depressive symptoms and stress, as well as improving heart rate variability, and this evidence is supported by another study (46). Through regular practice, women can reduce their risk of developing cardiovascular disease, promoting better cardiovascular health and improving their quality of life in general (27, 46).

Yoga practice has also been shown to be effective in the treatment of women with postpartum depression. A study (28) showed that women who participated in a yoga group experienced significant improvements in several measurements related to mental health, in comparison to the control group. The

benefits were seen in terms of reduced depression and anxiety, as well as an increase in health-related quality of life. These improvements happened at a notably faster rate than in the control group, indicating that yoga can be an effective and accessible therapeutic approach for women facing emotional challenges in the postpartum period (28).

Further regarding mindfulness yoga practice, when compared to stretching exercises and resistance training, statistically and clinically significant effects have been found in reducing depression symptoms in people with PD. When practicing yoga, individuals with PD are encouraged to focus on body movements, breathing, and internal sensations, fostering a deeper awareness of the body and of themselves. The regular practice of mindfulness yoga has been associated with a significant reduction in symptoms of depression, improved motor dysfunction and mobility, providing well-being (25).

Depression emerges as a significant source of psychological challenges faced by middle-aged men (aged 40 to 60). This condition triggers debilitating symptoms, including reduced mood, loss of motivation and interest, feelings of guilt or incompetence, disturbed sleep and appetite, as well as a sharp drop in energy and ability to concentrate. These elements have an adverse impact on daily activities and social interactions, leading to a noticeable deterioration in quality of life (47). However, a study shows that mindfulness yoga is an effective method for helping this group to reduce symptoms of depression, increase self-esteem, and improve their quality of life (48).

Yoga has been shown to be a viable and highly acceptable option for treating depression in adolescents. They often face emotional challenges and stress due to physical changes alongside academic and social pressure. The regular practice of this activity helps adolescents to develop emotional self-regulation skills, reducing depressive symptoms, and providing improvement in anxiety and sleep disorders. With its positive effects and accessibility, yoga is accepted as a complementary therapeutic approach to help adolescents deal with depression (20, 49).

After suffering an acute myocardial infarction, patients face negative consequences resulting from the secondary manifestations of atherosclerosis, such as anxiety and depression. These symptoms have a significant impact on the prognosis of coronary artery disease (50). Yoga practice, along with meditation and breathing exercises, contributes to a decrease in sympathetic activity, which results in a reduction in ventricular filling pressure. A clinical trial conducted with cardiac patients found that yoga has a valuable role in reducing levels of depression in these individuals, resulting in a significant improvement in their quality of life (24).

This review provides several important contributions to both research and clinical practice, as it has shown the effectiveness of yoga

in reducing depressive symptoms. It also provides valuable insights into the efficacy of yoga in various populations and settings.

However, it is worth highlighting a significant limitation. There was notable heterogeneity in terms of the types of yoga used, the duration of the interventions, the follow-up length, and the reporting of concurrent use of medication therapy. This diversity of approaches may limit the generalizability of the results found and warrants caution when interpreting the findings of this review.

Conclusion

Based on the analysis of the included studies, it is possible to conclude that yoga shows efficacy in reducing depressive symptoms in various populations. The studies analyzed, which ranged from publications from 2015 to 2023, included participants with various conditions, such as adolescents with symptoms of depression, breast cancer patients, women who have suffered stillbirths, heart disease patients, adults with PD, and women with postpartum depression. In all cases, yoga practice was associated with a significant improvement in depressive symptoms and was considered acceptable and viable.

Therefore, yoga is highlighted as an accessible, effective, and acceptable therapeutic tool, having a relevant role in the treatment of depression and the promotion of emotional and physical well-being in various populations. Its wide-ranging benefits suggest that this ancient practice could be incorporated as an integral part of holistic therapeutic approaches, providing an additional option for improving the quality of life of people affected by depression and related conditions.

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Efficacy of Yoga in Reducing Depressive Symptoms: A Systematic Review*

La eficacia del yoga en la reducción de los síntomas depresivos: una revisión sistemática*

Eficácia do yoga na redução de sintomas depressivos: revisão sistemática*

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