

Review

Depression, Traditional Chinese Medicine and Acupuncture: What are the Benefits in Treating Depression? A Narrative Review of the Literature.

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Abstract

Depression is one of the most prevalent mental disorders in the world, and although there are various treatments, they are not always effective. For this reason, interest in alternative and complementary approaches has been growing, particularly acupuncture. This study aims to conduct a narrative literature review to investigate the impact of Traditional Chinese Medicine (TCM) and acupuncture in treating depression. This work includes 16 studies published between 2015 and 2024, which the researchers searched in the PubMed and ScienceDirect databases. The results show that TCM and acupuncture can have a positive impact on reducing depressive symptoms and can be an effective therapeutic intervention, either as a single treatment or as a complementary intervention to the pharmacological therapy characteristic of Western medicine. Based on the findings, researchers can conclude that TCM and acupuncture are beneficial in the treatment of depression and cause no side effects for the individual.

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1. Introduction

Depression is currently one of the most prevalent mental disorders in the world, affecting millions of people of all ages, genders, and social backgrounds ^{1,2}.

According to the Portuguese Society of Psychiatry and Mental Health ³, depressive disorders are the third leading cause of global disease burden. However, the leading cause in developed countries, and by 2030, they are expected to become the leading cause worldwide, with a possible increase in the correlated rates of suicide and parasuicide.

Although there are various treatments for this mental disorder, from psychological therapy to pharmacological therapy ⁴, the treatments are not always effective, either because of the side effects of the drugs or because the therapeutic response may not be sufficient for some individuals with depression ⁵. In fact, an increasing number of people diagnosed with depression are seeking complementary therapies in order to avoid or minimise the side effects of drug therapy and improve their quality of life ⁶.

The fact that depression is the leading cause of disability and psychosocial dependence (11,8% of neuropsychiatric illnesses) ³, affecting the quality of life of those affected by it, is a growing challenge for society in general and the health systems in particular. This is because we can see the “growing burden of mental disorders [including depression] and their negative impact on individual performance, business costs, and social security spending. Mental disorders are among the leading causes of absence from work, low labour productivity, early retirement, and accidents” ⁷.

Against this backdrop, researchers and healthcare professionals have increasingly shown interest in alternative and complementary approaches, exploring their application in the treatment of depression. These approaches encompass actions or practices not typically available in Western medicine ⁸, such as TCM and, in particular, acupuncture as a technique within TCM.

Given the social and clinical relevance of depressive disorder, along with the search for effective and accessible treatments, it is crucial to identify and understand the benefits of TCM, in general, and acupuncture, in particular, in relieving and treating depressive symptoms. For these reasons, this study aims to carry out a narrative literature review to investigate the impact of TCM and acupuncture in the treatment of depression, in the belief that this could provide important empirical evidence for the use of alternative and complementary practices in the area of mental health.

1.1. Depression

Depression is one of the oldest mental health disorders ⁹. Given its prevalence worldwide, together with its association with severe disabilities, pathologies, and death, it is now considered a public health problem with an impact on personal, professional, and social levels ¹⁰, as mentioned above.

Coryell ⁵ characterises depression as a feeling of sadness and/or decreased interest or pleasure in performing activities that becomes a disorder when it is intense enough to affect the performance of functions. It may arise after a recent loss or other sad event, but it is disproportionate to the event and lasts longer than normal. It is, therefore, a pathological state characterised by conscious psychic suffering and guilt, in which a lack of interest in activities contributes to a reduction in psychomotor and organic activity, as well as a disregard for personal values ¹¹.

However, according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TR) ¹⁰, there are various types of depression, which is why we talk about depressive disorders, which the literature classifies as: disruptive mood dysregulation disorder; major depressive disorder; persistent depressive disorder; premenstrual dysphoric disorder; substance/medication-induced depressive disorder; depressive disorder due to another medical condition; other specified depressive disorder; and unspecified depressive disorder ¹⁰. The characteristic shared by these disorders is the presence of a sad, empty, or irritable mood, accompanied by related alterations that strongly affect the individual's functional capacity, and what distinguishes them is the duration, time, or presumed aetiology ¹⁰.

Therefore, individuals affected by this mental disorder show a continuous feeling of sadness, accompanied by a loss of interest in activities and various emotional, cognitive, and physical symptoms that affect their day-to-day lives and their quality of life. As far as the treatment of depression is concerned, since there are different depressive disorders, it can be complex due to the severity of the symptoms, duration, timing, and presumed etiology¹⁰, as well as the specific needs of each patient. However, the main means of treatment are psychotherapy focused on depression, complementarity between psychotherapy and pharmacological therapy, pharmacotherapy, and somatic therapies such as electroconvulsive therapy and transcranial magnetic stimulation ¹².

1.2. Traditional Chinese Medicine

TCM bases its practices on rites, rules, and principles that wise ancestors studied over many millennia of teaching and knowledge, which practitioners still apply today ¹³. It represents the modern branch of classical Chinese medicine and refers to a specific style endorsed by the Chinese state, which builds upon the foundations and concepts of classical medicine ¹⁴. The origins of TCM go back centuries with classics with more than 2000 years, such as the *Huangdi Neijing*, which dates back to 206 b.C to 220 a.C; *Zhen Jiu Jia Yi Jing*, dating from 215 to 282 a.C; or even *Shennong Bencaojing* or the *Shanghan Lun* ¹⁵.

TCM is a medical system in which the individual is subjected to a holistic assessment to identify the phenomena originating in the functional and organic alterations contributing to symptoms and signs ¹⁶. It differs due to characteristics such as its holistic vision, mind-body continuum, health-disease dichotomy, differentiation of syndromes, terminology, individualisation, and prevention ¹⁷.

This medical system builds upon the idea that illness arises due to the inadequate flow of the vital force - *Qi* - which is re-established through the balance of opposing forces - *Yin* and *Yang* - and which manifest themselves in the body as cold and heat, internal and external, and deficiency and excess ^{18,19}. According to Contatore *et al.* ¹⁴, TCM describes the body's vitality (*Qi*) based on the biological processes characteristic of Western medical thought. Thus, the sources of vitality would be the parents, food, and air, ruling out the existence of any other source that escapes materiality and rational understanding.

TCM adopts a particular terminology, where the concepts of *Qi*, *Xue*, *Shen*, and *Yin* and *Yang* are central:

- *Qi*: represents the vital energy/force that circulates through the body and is the basis of all the body's functions. The original *Qi* is the vital energy that originates in the *Yin* (Kidney) and is the force behind the creation of the phase vectors and is processed in order to form the functions of the organs and their relevant signs for diagnosis; Defensive *Qi* is found outside the conduits in the tissues and its distribution is the responsibility of the Lung; As well, there is the *Qi* that comes from food ²⁰;
- *Xue*: represents the blood and is assumed to be the form of functional capacity (energy) linked to the body's fluids, with the functions of heating, hydrating, creating *Qi*, and nourishing the tissues, and is moved by the *Qi* in the system of channels ²⁰;
- *Shen*: represents consciousness, mind and spirit, i.e. spiritual energy, and is associated with the individual's psychic, emotional and psychological functions. It is the most tenuous manifestation of *Qi*, translating into the functional capacity to establish order in mental association and emotions, leading to mental presence ²⁰;
- *Yin* and *Yang*: their concept and relationship are the basis of Chinese science and medicine, where *Yin* represents the dark side of a mountain, and *Yang* is its bright side ²⁰.

The foundations of TCM are the Yin-Yang theory, the theory of the five movements and organs (*Zang-Fu*), the theory of energies (vital substances and others), and the theory of channels and acupuncture holes ¹⁷.

The Yin-Yang theory bases its approach on the idea that the world results from the reciprocal action of two opposing and complementary forces (*Yin* and *Yang*), and that all changes in the universe result from the movement of these opposites. It is thought to have its origins in empirical observations of day and night cycles, with the idea that day (*Yang*) would give way to night (*Yin*), and vice versa" ¹⁷.

In turn, the theory of the five movements and organs focuses on the movements of fire, earth, wood, metal, and water, considered to be the five indispensable materials for building the world under the influence of the cosmos and are symbolic of the characteristics and patterns of movement of all phenomena, being in balance and close relationship with each other, and having the power to cause all the changes and movements that occur in nature ¹⁷.

In the light of the theory of energies, there are three forms of energies that are transformed and are central to the individual - the three treasures (*San Bao*), which correspond to *Jing* (essence), *Qi* (vital energy), and *Shen* (spiritual energy) ¹⁷. Furthermore, according to da Silva ¹⁷, in addition to these, *Xue* (blood) and *Jinyie* (bodily fluids) are energetic elements in the constitution of the human body.

Last but not least, the theory of channels and acupuncture holes refers to the physiology of the Meridian System (*Jing Luo Xi Tong*), a system of interconnected channels, where *Qi* and *Xue* circulate and which is in close relationship with the *Zang-Fu* and other members of the body, connecting them into one. The system comprises channels (*Jing*),

longitudinal and deep, and collateral channels (*Luo*), transverse and superficial, which connect the Jing with the skin and connective tissue. Together, these are called *Jingluo* ¹⁷.

Concerning TCM, Millstine ¹⁹, based on various systematic reviews and meta-analyses of studies, most of them carried out in China, points out the effectiveness of TCM in various diseases, namely:

- Symptoms of Tourette's syndrome;
- Chronic kidney disease, when combined with Western medicine;
- Post-stroke depression, when combined with Western medicine;
- Depression during menopause and perimenopause when combined with acupuncture;
- Some outcomes in COVID-19, when combined with Western medicine;
- Acute gouty arthritis;
- Quality of life and symptom control in lung cancer.

1.3. Acupuncture

Acupuncture is a therapeutic practice that originated in China over 3000 years ago and is now one of the techniques used in TCM ²¹. Its purpose is to restore and promote the individual's energy balance and well-being, to prevent and/or treat disease by inserting needles into specific points on the body ²²⁻²⁵.

These specific points are called acupoints and in oriental medicine literature they are the channels; the insertion of needles stimulates these points, promoting the balance of the body's energy, the circulation of energy in the energy channels and the organs and viscera, thus maintaining health and harmonising the body ^{26,27}. It is in the channels that the vital force, *Qi*, passes through and by stimulating (toning) or pressing (sedating) the acupoints, the circulation of vital energy is altered, as well as the flow of blood (*Xue*) in the body ²⁸. In addition to *Qi* and *Xue*, the five vital substances include essence (*Jing*), bodily fluids (*Jin Yie*), and mind (*Shen*) ²⁹. The acupoints, the places where the needles are inserted, are located on the channels, the energy channels, and are found between tissues, bones, and tendons or soft or rigid parts of the tissues, and can have a systemic, local, or distant action ²⁷.

The four fundamental concepts that guide acupuncture treatment are the Ying/Yang theory, the five movements, the *Zang-Fu*, concept and the energy meridians ³⁰.

In the Yin/Yang theory, Yin represents mass or matter, and Yang represents movement and energy ²⁷; they maintain a relationship of opposition, interdependence, mutual consumption, and intertransformation ²⁹. *Yin* and *Yang* complement and transform each other, and when they are out of balance, illness arises ²⁷.

The five movements are the five basic elements found in nature: wood, fire, metal, earth, and water ^{27,29}. This theory plays a crucial role in TCM in that the phenomena of physiology and disease are classified and analysed according to their interrelationships ³¹.

The concept of *Zang-Fu* focuses on the organs and viscera of the human body, each represented by one of the five movements, i.e., the heart represents fire, the kidney water, the lung metal, the liver wood, and the spleen and pancreas earth ²⁷. *Zang-Fu* theory, including the yin e yang classification. The *Yin* (*Zang*) organs refer to the heart, liver, lungs, spleen, and kidneys, which store essential substances (*Qi*, essence, blood and body fluids). The *Yang* (*Fu*) organs are the small and large intestines, gallbladder, stomach, bladder, and triple heater, which receive and transform food and liquids to produce *Qi* and *Xue* ²⁷.

Furthermore, considering the five visceral entities, it should be noted that each organ is associated with an entity: the heart with *Shen*, the liver with *Hun*, the lung with *Po*, the spleen and pancreas with *Yi*, and the kidney with *Zhi* ³². *Shen*, *Hun*, *Po*, *Yi*, and *Zhi* perform the mental and spiritual functions of TCM, with *Shen* being associated with fire and the heart, *Hun* with wood and the liver, *Po* with metal and the lung, *Yi* with earth and the spleen and pancreas, and *Zhi* with water and the kidney ³².

1.4. Depression in oriental medicine

In TCM, depression is characterised by an energy imbalance, which can include one or more patterns of imbalance between the organs and viscera (Zang Fu), varying according to the symptoms presented by the patient ¹⁸. This is because there is no separation between mental illnesses and physical/biological illnesses, where depression results from an energy imbalance that is not necessarily related to the functioning of the brain ^{18,33}.

The signs and symptoms of depression can be associated with a deficiency or stagnation of Qi or with patterns of Yin-Yang disharmony, in particular, the disharmony of liver Qi, which is responsible for the free flow of emotions ¹⁸. Therefore, in the case of depression, if the orthopathy (the body's ability to self-regulate) of the Heart is weakened and there are simultaneous deficiencies Qi and Xue, the presence of the pathological agent Wind and/or pathological emotions will lead to an imbalance in the system. As a result, there will be a blockage of Qi, which, if left untreated, will affect the Liver and be transmitted to the Heart ³⁴.

According to Soares Bernardo ¹⁸ and Serra ³⁵, TCM has been successful in treating depression for over 2000 years through different combinations of acupuncture, herbal medicine, diet, and, in some cases, lifestyle, always taking into account the individual's pattern of imbalance.

Looking at depression in the light of the theory of the five movements, it can be explained that:

- Water: in this movement, the individual shows symptoms such as apathy, lack of confidence in their ability to solve problems, and a sense of powerlessness;
- Earth: depression results from an imbalance of the intellect, in which the individual worries too much, can become unsympathetic, and has problems concentrating;
- Fire: the depressed individual shows a lack of joie de vivre, little enthusiasm, lack of inspiration and judgment, so depression is associated with affective problems, such as rejection and disappointment in interpersonal relationships;
- Metal: characterised by symptoms such as pessimism and feelings of guilt, this type of depression arises in response to material losses;
- Wood: The main symptoms are frustration, irritability, grief, and loss of purpose in life, which portray ambitious and hard-working individuals who have suddenly lost motivation and direction.
- Furthermore, other authors elaborate on this interpretation.

According to Castro ³⁶, depression due to deficiency can be related to a single syndrome, such as depression resulting from Kidney Qi and Yang deficiency. However, depression can also be associated with more than one system, which is why Castro ³⁶ points out a deficiency of the Kidney and Liver, which can be seen in a lack of initiative, lack of affirmation, poorly defined goals, uncertainty about identity or which path to follow in life; Deficiency of the Kidney and Heart, which can be seen in apathy, lack of initiative, lack of energy, lack of interest in work, life, sex, and personal relationships; Deficiency of the Heart and Spleen, shown by the need for affection and care, difficulty in maintaining relationships due to feelings such as lack of love and solitude.

Depression caused by stagnation can manifest in five ways: Heart Qi Stagnation, Spleen Qi Stagnation, Lung Qi Stagnation, Kidney Qi Stagnation, and Liver Qi Stagnation. In this case, depression arises from the complaint of tiredness, but it is more associated with a sensation; however, it can also originate from the combination of a deficiency and a stagnation ³⁶. The most common cases are Deficiency and stagnation of Qi and Kidney, where there is little energy and willpower and the person is unable to achieve their goals; Deficiency and stagnation of Liver Qi, caused by a lack of planning and unwise decisions causing problems which, in turn, lead to the development of depression with a feeling of obstruction and an inability to find alternative solutions; Deficiency and stagnation of Heart Qi, where there is a need for affection, along with difficulty in communicating and having relationships, so the person feels they have no way out ³⁶.

As far as acupuncture is concerned, it has been increasingly studied and used as a complementary treatment for depression ³⁵.

2. Research Methodology

For this study, a narrative literature review methodology was adopted, since it is very useful for describing and discussing existing evidence on a given subject from a theoretical or contextual perspective ³⁷. Moreover, Cordeiro *et al.* ³⁸ state that the narrative literature review rarely starts from a specific, well-defined question, requiring no rigid protocol for its preparation; the search for sources is not predetermined or specific, and is often less comprehensive. The selection of articles is arbitrary, providing the author with information subject to selection bias, with significant interference from subjective perception.

As mentioned above, the research question, i.e., the question to which an answer is sought does not necessarily have to be rigorous. However, in order to give this narrative literature review greater quality and consistency, the PICO strategy was used – Patient, Intervention, Comparison, Outcome – as it is a methodology that supports the formulation of research questions ³⁹ and that integrates essential components that support bibliographic research ⁴⁰: Patient – patients with depression; Intervention – TCM and acupuncture; Comparison – no intervention, psychotherapy or drug therapy; Outcome – any type of benefit provided by TCM and acupuncture for the treatment of depression.

2.1. Inclusion and exclusion criteria

Selection criteria are used to assist in choosing the studies to be included in the narrative literature review and include inclusion criteria, aspects that must be present in the studies to be integrated, and exclusion criteria, aspects that invalidate the use of the studies because they are not suitable for this study.

Therefore, the inclusion criteria for this narrative literature review are articles published in the last 10 years (2014-2024), with free and complete access, published in English and Portuguese that emphasise TCM and acupuncture in the treatment of depression. In turn, the exclusion criteria are articles published more than 10 years ago, without free access, published in other languages, and that address the benefits of TCM and acupuncture in the treatment of other mental disorders, for example, anxiety.

2.2. Explanation of the research method

Search was carried out on Medical Subject Headings (MeSH), as these were created to classify information and facilitate bibliographic research ⁴¹, configuring a controlled vocabulary that allows the use of common terminology for indexing and retrieving scientific articles in databases ⁴¹. Four keywords were selected for the search – depression, TCM, acupuncture and treatment – after searching and analysing the descriptors, six were selected: depression, depressive disorder, traditional Chinese medicine, acupuncture therapy, acupuncture, and treatment outcome. The next step consisted of constructing two Boolean phrases to carry out two searches – one focusing on TCM and the other focusing on acupuncture – in the PubMed and ScienceDirect databases:

- 1) ((depression) OR (depressive disorder)) AND (Chinese, traditional medicine) AND (treatment outcome);
- 2) ((depression) OR (depressive disorder)) AND ((acupuncture therapy) OR (acupuncture)) AND (treatment outcome).

3. Results

The first search focused on TCM and in the search for evidence in PubMed, 360 results were obtained and after the introduction of the selection criteria, five articles published between 2015 and 2024 were selected ⁴²⁻⁴⁶. In Science Direct, from a total of 11690 results and meeting the selection criteria, four articles published between 2017 and 2024 were chosen to integrate this narrative literature review ^{23,47-49}.

In the second search (focused on acupuncture), from the PubMed search, 542 results were obtained and after entering the inclusion criteria, five articles published between 2019 and 2023 were selected: ⁵⁰⁻⁵⁴. In ScienceDirect, after inserting the previously formulated Boolean phrase, approximately 1,000,000 results were obtained, so to limit the search, the Boolean phrase was reformulated to depression AND acupuncture therapy, obtaining 7832 results. After entering the inclusion criteria, two articles published between 2022 and 2024 were selected ^{55,56}.

The following figure is the flowchart that reveals the entire research process focusing on TCM and acupuncture. This narrative literature review includes 16 articles, nine on TCM and seven on acupuncture.

In order to give this narrative literature review greater scientific rigor, and although it is not characteristic of this type of literature review, the PRISMA flowchart is presented below, as it explains the entire process of research and data extraction (Figure 1).

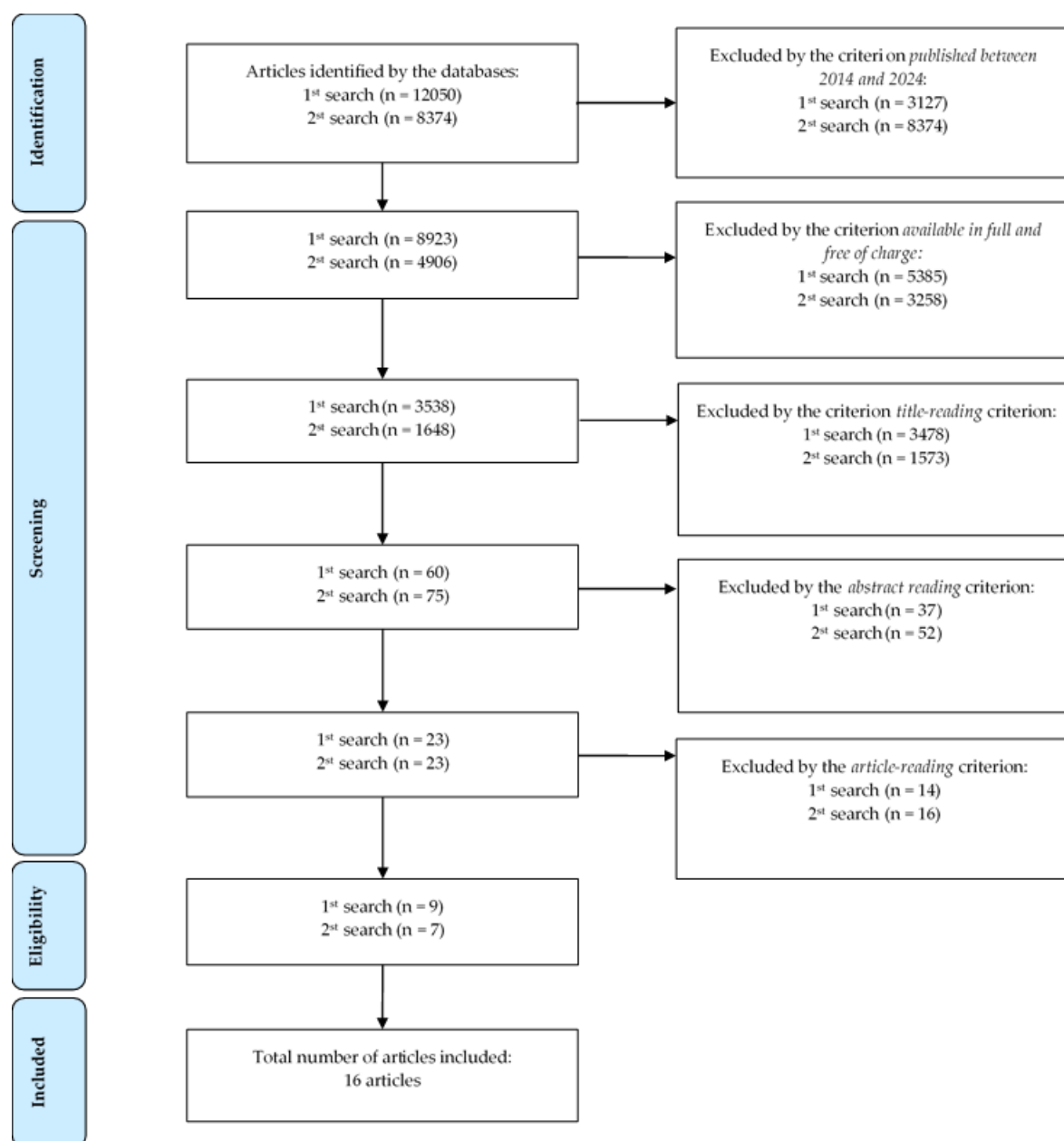


Figure 1. PRISMA Flowchart

As can be seen from the PRISMA flowchart presented, this narrative literature review includes a total of 16 studies published between 2015 and 2024. Nine studies were selected for the research that focused on TCM (2015-2024). The following table (Table 1) presents

a summary of the nine articles, taking into account: identification of the authors, journal, objective, method, sample, results, and conclusion.

Table 1. Summary of studies focusing on TCM

Wang et al. ⁴² – Scientific Reports	
Objective/Sample	- To evaluate the effect of traditional Chinese exercise on quality of life and depression for chronic diseases; - 4311 patients in 60 randomised clinical trials.
Method/Type of Study	- Quantitative study; - Meta-analysis.
Results	- Traditional Chinese exercise can improve the results of the SF-36 (short form) physical function subscale in the short and medium term and the Center for Epidemiologic Studies depression scale in the short and medium term.
Conclusion	- Traditional Chinese exercise can significantly improve the quality of life and depression of patients with chronic diseases.
Chen et al. ⁴⁶ – Chinese Journal of Integrative Medicine	
Objective/Sample	- To evaluate the efficacy and safety of <i>Jianpi Jieyu</i> Decoction (JJD) in the treatment of patients with mild to moderate depression of Xin (heart) and Pi (spleen) deficiency syndrome (XPD); - 140 patients with mild to moderate depression of XPD syndrome, distributed into two groups: JJD group and paroxetine group.
Method/Type of Study	- Quantitative method; - Multicentre, randomised, controlled study.
Results	- The results of the Hamilton Depression Rating Scale and the Hamilton Anxiety Scale decreased in the group subjected to (JJD) and in the group subjected to paroxetine. On the Traditional Chinese Medicine Symptom Scale, scores also decreased in both groups, with a more significant decrease in the JJD group.
Conclusion	- Compared with paroxetine, JJD was associated with a lower incidence of adverse events in patients with mild to moderate depression of XPD syndrome. However, no significant difference was found in the level of efficacy at the sixth week.
Tao et al. ⁴³ – Frontiers in Psychiatry	
Objective/Sample	- To investigate the efficacy and functional magnetic resonance imaging outcomes of <i>Tuina</i> therapy in patients with post-stroke depression (PSD); - 84 patients with PSD were distributed into groups: the <i>Tuina</i> therapy group and the routine rehabilitation control group.
Method/Type of Study	- Quantitative method; - Single-centre, randomised, controlled clinical trial.
Results	- Patients in the <i>Tuina</i> therapy group showed better results on the Hamilton Depression Rating Scale and the Mini Mental State Examination.
Conclusion	- <i>Tuina</i> therapy, administered 10 times for two weeks, is safe and can alleviate symptoms of depression and improve cognitive function in patients with PSD. The results obtained in <i>Tuina</i> therapy can be justified by the fact that it has an effect on the activation and functional connectivity of the hippocampus.
Feng et al. ⁴⁴– Medicine	
Objective/Sample	- To evaluate the therapeutic effect of traditional Chinese exercise on depression through network meta-analysis; - 1605 cases in 25 studies.
Method/Type of Study	- Quantitative method; - Meta-analysis with randomised controlled studies.

Results	- The results demonstrate that each exercise (out of a total of three – <i>Baduanjin</i> , Tai Chi and <i>Wuqinxi</i>) had a significant effect on depressive symptoms, as scores on the Hamilton Depression Scale, Hamilton Anxiety Scale, Beck Depression Inventory and Self-Rating Depression Scale decreased with all exercises.
Conclusion	- The three exercises were effective for depression, with <i>Baduanjin</i> and Tai Chi being the ones that presented the best results for depression and anxiety.
Lin et al.⁴⁵ – Medicine	
Objective/Sample	- To assess the effectiveness of the liver Qi stagnation method in relieving depression in patients with postoperative papillary thyroid carcinoma; - 72 patients with postoperative papillary thyroid carcinoma with depression.
Method/Type of Study	- Quantitative method; - Randomised controlled clinical trial.
Results	- The test group showed better results than the control group in the Hamilton Depression Scale scores, as well as a better overall quality of life, reducing symptoms of fatigue and insomnia.
Conclusion	- The Liver Qi Stagnation Calming Method contributes to increasing serum 5-hydroxytryptamine levels, decreasing inflammatory factors related to depression, and resulting in the alleviation of depression in patients with postoperative papillary thyroid carcinoma.
Facai et al.⁴⁷ – Journal of Traditional Chinese Medicine	
Objective/Sample	- To evaluate the clinical efficacy and safety of music therapy in five phases in patients with depression after ischemic stroke; - 92 patients with post-stroke depression, distributed into three groups: control group (basic therapy for cerebral infarction + 50 mg of oral sertraline hydrochloride daily); treatment group A (basic therapy for cerebral infarction + needling at <i>Baihui</i> (GV 20) + acupuncture injection at <i>Yanglingquan</i> (GB 34) daily), and treatment group B (basic therapy for cerebral infarction + needling at <i>Baihui</i> (GV 20) + acupuncture injection at <i>Yanglingquan</i> (GB 34) daily + music therapy derived from the five phases of TCM theory twice a day).
Method/Type of Study	- Quantitative method; - Clinical trial.
Results	- Treatment group B showed the best results on the Hamilton Depression Scale.
Conclusion	- Five-phase music therapy, along with acupuncture point needling and injection, may improve symptoms in patients with post-stroke depression.
Gu et al.⁴⁸ – Biomedicine & Pharmacotherapy	
Objective/Sample	- Assess the use of phytotherapy in the treatment of depressive disorder; - 28 studies.
Method/Type of Study	- Qualitative method; - Systematic review.
Results	- Treatment with Chinese herbal medicine significantly altered metabolic disorders associated with depression.
Conclusion	- Phytotherapy promotes the reorganisation of the metabolic network by restoring key metabolites and metabolic pathways and may constitute the main basis of the phytotherapy treatment mechanism for depression.
Rodrigues et al.²³ – Brain Behavior and Immunity Integrative	
Objective/Sample	- Analyse the evidence on the effectiveness of TCM for mental health; - 32 studies.
Method/Type of Study	- Qualitative method; - SLR.
Results	- TCM can be beneficial in treating certain mental illnesses, such as depression, and improve patients' quality of life.
Conclusion	- TCM can have a positive impact on the treatment of some mental illnesses and be beneficial for patients who do not have access to conventional therapies.
Huang et al.⁴⁹ – Complementary Therapies in Medicine	

Objective/Sample	- To evaluate the safety and efficacy of <i>Baduanjin</i> in reducing depression and anxiety in individuals suffering from coronavirus disease 2019; - 8 randomised clinical trials.
Method/Type of Study	- Quantitative method; - Meta-analysis and SLR.
Results	- <i>Baduanjin</i> exercise had a more favourable impact on reducing the scores of the self-rating depression scale, Hamilton Anxiety Rating Scale, Patient Health Questionnaire, and Generalised Anxiety Disorder for COVID-19 patients.
Conclusion	- The authors reinforce the difficulty in concluding the <i>Baduanjin</i> exercise as being an effective intervention to reduce depression and anxiety in patients with COVID-19 due to the risk of bias among the available randomised controlled trials, reinforcing the need for further studies.

The research that focused on acupuncture allowed the selection of seven articles (2019-2024), which are summarised below in Table 2.

Table 2. Summary of studies focusing on acupuncture

Zhang et al.⁵⁰ – Medicine	
Objective/Sample	- To evaluate the effectiveness of acupuncture in patients with post-stroke depression; - 7 essays.
Method/Type of Study	- SLR.
Results	- Pooled analysis demonstrated that patients in the acupuncture intervention group experienced a significantly more significant treatment effect than those in the control group; - There is a statistically significant difference in efficacy between the acupuncture alone and medication groups.
Conclusion	- Acupuncture is an effective and safe treatment for patients with post-stroke depression, finding that acupuncture treatment showed better results in terms of depressive symptoms than pharmacological therapy.
Xue et al.⁵¹ – Journal of Traditional Chinese Medicine	
Objective/Sample	- To evaluate the clinical efficacy and safety of combined acupuncture and Western medicine in the treatment of post-stroke depression through a meta-analysis; - 1860 patients in 24 randomised clinical trials.
Method/Type of Study	- Quantitative study; - Meta-analysis.
Results	- The effective rate of acupuncture and fluoxetine hydrochloride versus fluoxetine hydrochloride was significant, as was that of acupuncture and flupentixol/melitracen versus flupentixol/melitracen; - Acupuncture combined with Western medicine was superior to Western medicine alone and could alleviate patients' depressive symptoms.
Conclusion	- The therapeutic effects of acupuncture combined with Western medicine on post-stroke depression are better than those resulting from Western medicine used alone, witnessing fewer adverse reactions.
Wong et al.⁵² – Neurotherapeutics	
Objective/Sample	- To investigate the efficacy and mechanism of combining acupuncture with antidepressants in the treatment of depression compared to the exclusive use of antidepressants; - 70 patients: 50 for the intervention group and 20 for the control group.
Method/Type of Study	- Quantitative study.
Results	- After three weeks, Hamilton Depression Rating Scale and Patients Health Questionnaire scores were lower in the intervention group, which also showed stronger resting-state functional connectivity in the dorsolateral prefrontal cortex.

Conclusion	- Depressed patients undergoing acupuncture combined with antidepressants show improvement in depressive symptoms, and the relationships of functional connectivity in the resting state are stronger in the dorsolateral prefrontal cortex compared to individuals who only undergo antidepressant-based pharmacological therapy.
Zhang <i>et al.</i> ⁵³ – Anatomical Record	
Objective/Sample	- Systematically evaluate whether acupuncture therapies for depression are safe and effective; - 12 studies, with a total of 1001 participants.
Method/Type of Study	- SLR
Results	- Acupuncture as a complement to antidepressants or as the sole treatment can have a positive impact on patients' depressive symptoms; - Compared with antidepressant therapy, acupuncture has advantages such as rapid onset and long-term effectiveness in treating depression and may increase the effectiveness of antidepressants.
Conclusion	- Acupuncture is safe and effective in treating depression. Although it does not replace antidepressant therapy, it presents better results than antidepressants in terms of onset time and long-term effectiveness, enhancing the clinical effectiveness of these medications.
Lam Ching <i>et al.</i> ⁵⁴ – BMC Psychiatric	
Objective/Sample	- To explore the impact of acupuncture in alleviating symptoms of post-stroke depression and to evaluate the difference in efficacy between acupuncture combined with pharmacological therapy; - 62 studies, with a total of 5308 participants.
Method/Type of Study	- SLT and network meta-analyses.
Results	- The results showed that, compared to Western medicine, acupuncture used alone or accompanied by repetitive transcranial magnetic stimulation was more effective in alleviating symptoms of depression.
Conclusion	- The isolated or combined use of acupuncture with other therapies is more effective in terms of improving depressive symptoms presented by stroke survivors; - Acupuncture, used exclusively or in conjunction with repetitive transcranial magnetic stimulation, TCM, TCM with Western medicine, or Western medicine, is more effective in improving the depressive symptoms of patients with post-stroke depression, with the complementarity between acupuncture and repetitive transcranial magnetic stimulation, the most effective.
Zhao <i>et al.</i> ⁵⁵ – Brain Behavior and Immunity Integrative	
Objective/Sample	- Explore the peripheral inflammatory cytokines of acupuncture in the treatment of major depressive disorder; - Nine studies, including 848 participants.
Method/Type of Study	- SLR and meta-analysis.
Results	- Two of the studies included suggest that acupuncture may lead to changes in inflammatory cytokine levels, independent of comparisons with sham acupuncture or selective serotonin reuptake inhibitors.
Conclusion	- Acupuncture may have anti-inflammatory effects in patients with major depressive disorder, highlighting its potential as a viable multifaceted therapeutic approach for the treatment of depression.
Li <i>et al.</i> ⁵⁶ – Complementary Therapies in Medicine	
Objective/Sample	- Conduct a literature analysis to examine the current landscape, identify hotspots, and explore frontiers in acupuncture research for post-stroke depression; - 11540 items.

Method/Type of Study	- Literature analysis based on the quantitative evaluation of bibliographic data, with the purpose of identifying publication patterns, collaboration between authors and institutions and areas of emphasis.
Results	- The results demonstrated an increase in the number of publications on acupuncture for post-stroke depression, emphasising specific regions and institutions that lead research in this area.
Conclusion	- There is growing interest in research into acupuncture as a treatment for post-stroke depression, emphasising the need for more studies to be conducted in order to consolidate evidence and guide future clinical practices.

4. Discussion

The present study sought to assess the benefits of TCM and acupuncture in the treatment of depression and demonstrates, in general, that TCM, through various treatment techniques, herbal medicine, *Tuina*, traditional Chinese exercises, and acupuncture, has a positive impact on the reduction of depressive symptoms and can constitute an effective therapeutic intervention, either as a single treatment or as a complementary intervention to conventional therapies, characteristic of Western medicine.

The results focusing on TCM reveal that traditional Chinese exercises ⁴², namely *Baduanjin*, Tai Chi and *Wuqinxi* ⁴⁴, can improve the results obtained on depression scales, which means that it alleviates the symptoms of this disorder. Similarly, in their study, Feng *et al.* ⁴⁴ revealed that traditional Chinese exercises (with emphasis on *Baduanjin* and Tai Chi) had a positive effect on relieving symptoms since scores on several scales reduced (Hamilton Depression Scale, Hamilton Anxiety Scale, Beck Depression Inventory and Self-Rating Depression Scale). Huang *et al.* ⁴⁹ also highlights the *Baduanjin* exercise, noting that it had a more favourable impact on reducing the scores of the self-rating depression scale, the Hamilton Anxiety Rating Scale, the Patient Health Questionnaire, and Generalised Anxiety Disorder for COVID-19 patients.

The study by Tao *et al.* ⁴³ investigated the efficacy and functional magnetic resonance imaging results of *Tuina* therapy in patients with PSD and the authors concluded that *Tuina* therapy, administered 10 times over two weeks, is safe and can alleviate symptoms of depression and improve cognitive function in patients with PSD, since it has an effect on the activation and functional connectivity of the hippocampus.

The results obtained regarding the beneficial effects of TCM on depression show the scope of TCM's role in treating depression or alleviating its symptoms. For example, Lin *et al.* ⁴⁵ were concerned with understanding the effectiveness of the liver Qi stagnation method in alleviating depression in patients with postoperative papillary thyroid carcinoma. The results were clear, and the study revealed that this calming method contributes to increasing serum levels of 5-hydroxytryptamine, which, consequently, decreases inflammatory factors related to depression, resulting in relief of depression in patients with postoperative papillary thyroid carcinoma. These results are in line with what was mentioned by Soares Bernardo ¹⁸, who explains that depression is characterised by energy imbalance and may involve one or more patterns of imbalance between organs and viscera (for example, the liver), varying depending on the symptoms presented by the patient ¹⁸, since depression results from an energy imbalance that is not always associated with brain function. Depressive signs and symptoms may be associated with a deficiency or stagnation of Qi or with patterns of Yin-Yang disharmony, highlighting the disharmony of the Qi of the liver, which is responsible for the free flow of emotions ^{18,35}.

In the same sense, it is worth highlighting the results of the study by Facai *et al.* ⁴⁷, which demonstrate that music therapy based on the traditional 5 elements notions, together with needling and injection of acupuncture points, can improve symptoms in patients with PSD. In fact, from the results obtained, it can be seen that TCM has a positive impact on alleviating depressive symptoms in patients with PSD and Rodrigues *et al.* ²³ go further, stating that TCM can have a positive impact on the treatment of some mental illnesses and be beneficial for patients who do not have access to conventional therapies.

Another TCM technique that the results highlighted was phytotherapy, in which Gu *et al.*⁴⁸ explain that this technique significantly altered the metabolic disorders associated with depression since by promoting the reorganisation of the metabolic network through the restoration of key metabolites and metabolic pathways, it may constitute the main basis of the mechanism of phytotherapy treatment in depression. TCM has been successful in treating depression for thousands of years through different combinations of acupuncture, herbal medicine, diet, and, in some cases, lifestyle, always taking into account the individual's pattern of imbalance^{18,23,35,45}.

Specifically, in the study by Chen *et al.*⁴⁶, JJD showed beneficial effects on depression, anxiety, and Traditional Chinese Medicine Symptom Scale scores, which decreased. These results suggest that this Chinese herbal decoction may be useful in this context.

Turning the focus to acupuncture in particular, the studies analysed revealed that it can considerably improve depressive symptoms in different populations, namely, patients diagnosed with major depressive disorder⁵⁵ and post-stroke depression^{50,54}.

The results obtained also showed that acupuncture combined with Western medicine can maximise the effects of antidepressants, reducing the time required for the onset of symptom remission and minimising the side effects resulting from medication intake^{42,52}.

The evidence found reveals that acupuncture complements conventional approaches but, at the same time, contributes to an improvement in the quality of life of patients, as it provides them with symptomatic relief in a less invasive way.

Considering the pathophysiology, the results presented by Zhao *et al.*⁵⁵ are indicative that acupuncture may have anti-inflammatory effects, acting on peripheral inflammatory cytokines, thus confirming that inflammation is a factor that contributes to the development of major depressive disorder.

Considering the theoretical framework presented and the analysis of the results, it becomes evident that acupuncture emerges as a TCM practice, in which energy balance plays a crucial role in mental health. Because, as previously stated, Qi and the Yin/Yang theory state that depression is a mental illness that can be caused by a deficiency and/or stagnation of energy in specific organs and systems³⁶. Stimulating acupoints can restore energy flow and have a positive impact on the mental health of individuals suffering from depression.

The review also indicated that scientific interest in acupuncture in the treatment of depression has grown over time, as highlighted by Li *et al.*⁵⁶, who identified an increase in academic production on the topic. This information reflects not only the search for safer and more effective alternative treatments, but also the need for scientific exploration and consolidation of evidence on their clinical application²³.

5. Conclusion

The findings of this review confirm that TCM and acupuncture are beneficial for individuals diagnosed with depression. TCM practices such as traditional Chinese exercises, *Tuina*, herbal medicine, and music therapy can improve quality of life and alleviate depressive symptoms by promoting energetic balance and supporting mental health through holistic mechanisms.

Evidence indicates that *Baduanjin* and Tai Chi reduce depressive and anxious symptoms, while *Tuina* is safe and effective in improving both mood and cognitive function in post-stroke depression. Five-phase music therapy combined with acupuncture enhances mental well-being, and phytotherapy contributes to metabolic reorganisation by restoring key pathways associated with depression. Interventions based on Liver Qi regulation also demonstrate efficacy in patients with diverse clinical conditions, such as postoperative papillary thyroid carcinoma.

Acupuncture, in particular, has proven to be a safe and effective treatment, showing faster onset, longer-lasting benefits, and enhanced antidepressant efficacy compared to pharmacological therapy alone. It may also exert anti-inflammatory effects in major depressive disorder. Nonetheless, further high-quality studies and standardised clinical

guidelines are needed to consolidate evidence and ensure safe, consistent application. Acupuncture and other TCM techniques thus represent valuable complementary strategies for managing depression within an integrative care model.

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