

Depression

Overview

Introduction

The evidence suggests that acupuncture is beneficial for those suffering from depression. Many clinical trials were conducted in China and there are concerns the results may not be applicable to a UK setting. However, a large-scale high-quality trial was carried out in the UK, which indicates that acupuncture is effective when compared to usual care. Acupuncture is included in some clinical guidelines but not all. The reasons given for exclusion from guidelines include: the comparison with sham, applicability of evidence produced in China to the UK setting, lack of acupuncturists (see Commentary).

Evidence reviews

The Evidence Map of Acupuncture by the Department of Veterans Affairs Health Services Research & Development Service 2014 [USA]¹. Rated the evidence for depression as 'a potential positive effect' with high confidence. The Acupuncture Evidence Project also found there was evidence of positive effect.²

Systematic Reviews

There are two recent systematic reviews of acupuncture for depression, including a Cochrane review.^{3,4}

Within these reviews there were several comparisons:

- Is acupuncture better than no treatment or usual care?
- Is acupuncture better than control acupuncture (sham/placebo)?
- Is acupuncture combined with antidepressant medication better than antidepressant medication alone?
- Is acupuncture better than psychological therapies?

The results indicate a statistical superiority for acupuncture and, for the more recent review, are as follows:³ **Table 1: Acupuncture for depression**

Comparison	Size of effect	Hedge's g
acupuncture vs usual care	moderate	0.41
acupuncture vs sham	moderate	0.55
acupuncture SSRI/SNRI vs SSRI/SNRI alone	large	0.85
acupuncture vs. psychological therapies	No significant difference	

The authors assessed the quality of the evidence as being low^{3,4}. The key factor in this assessment was the lack of blinding. It is not possible to conduct pure placebo-controlled trials as the sham procedure are always potentially active⁵⁻⁷. At present, the standard evaluation techniques of systematic reviews tend to assess acupuncture research as low quality because of the difficulty in conducting double blind trials. The acupuncturist cannot be 'blind'. In other words, the acupuncturist is aware they are giving acupuncture.

Clinical Guidelines

The American Psychological Association Clinical Practice Guideline for the Treatment of Depression Across Three Age Cohorts (2019): Makes a conditional recommendation to use acupuncture for depression.⁸

NICE Guidelines NG222 (2022). Depression in adults: treatment and management⁹: Does not recommend acupuncture. The Guideline states (p100)

There was some evidence of effectiveness and cost effectiveness for the combination of acupuncture and antidepressants, but the committee were aware this evidence was based on Chinese acupuncture which is different to Western acupuncture and so these results may not be applicable to the UK population (see Commentary)

Canadian Network for Mood and Anxiety Treatments (CANMAT) 2016 Clinical Guidelines for the Management of Adults with Major Depressive Disorder¹⁰: Recommends acupuncture.

Clinical trials

The cautious conclusions or negative assessments within systematic reviews and clinical guidelines can be attributed to a number of factors. These include the difficulties in conducting placebo-controlled trials and the reliance on clinical evidence from China (see Commentary).

Fortunately, a large, high-quality trial was conducted in the UK¹¹. Because of the size and quality of this trial, it represents the best evidence currently available to the UK setting. The acupuncture was delivered by members of the British Acupuncture Council which ensured the acupuncture was of a high standard.

This trial adopted a pragmatic approach and focused on key questions for those with depressions. Firstly, whether depression can be alleviated by a course of acupuncture. Secondly, how acupuncture compares to having a course of counselling. In essence, the trial models what happens if those with depression are referred to acupuncture or counselling by their GP. The trial was not designed to be placebo-controlled.

The results show that a course of acupuncture, approximately 10 treatments once a week, is effective. For acupuncture vs usual care, a statistically significant reduction in mean PHQ-9 depression scores at 3 months (-2.46, 95% CI -3.72 to -1.21), and over 12 months (-1.55, 95% CI -2.41 to -0.70). Benefits were still present after one year. Acupuncture slightly outperformed counselling but this was not a statistically significant difference.

Commentary

External Validity

There are a number of challenges in acupuncture research. Firstly, it is not possible to develop an inert sham/procedure [5]. Secondly, the challenge of ensuring the acupuncture is similar to acupuncture delivered in practice, known as external validity. You can find more information about these challenges in general and the placebo problem here Acupuncture research: <https://acupuncture.org.uk/about-acupuncture/acupuncture-research/>. In this commentary we will focus the problem of external validity.

Acupuncture is often described as holistic. For BAcC acupuncturists, who have trained in one of the traditional based styles of acupuncture, this means treatment should be tailored to the individual. Therefore, two people who have both been diagnosed with depression will most likely receive different treatments: the acupuncture points will be different, moxibustion may or may not be used, different lifestyle advice maybe given. Of course, there will be similarities and certain acupuncture points will be commonly used.

In clinical research, the standard approach is to provide the same treatment. This means that often the same acupuncture points are used for all of those in the acupuncture treatment group. These are known as fixed point protocols. Some clinical trials allow the acupuncturist to choose from a pool of pre-selected acupuncture points. These are semi-fixed protocols. Finally, some clinical trials allow the acupuncturist to select points as they would in normal practice. This is known as 'individualised' acupuncture. Therefore, clinical trials that use fixed point protocols are less like practice than those that use 'individualised' acupuncture; with semi-fixed protocols are somewhere in the middle. This means, potentially, the acupuncture delivered in a clinical trial is not as effective as the acupuncture received in practice. There may be an underestimation of the benefit of acupuncture.

A systematic review explored the potential mechanisms the underlay the improvements in depression and schizophrenia with acupuncture¹². The reviewers noted there was a significant improvement in sleep quality as well as in depression. For traditional acupuncturists, the depression and insomnia are not separate conditions. They are part of an overall symptomatic picture, along with many other potential signs and symptoms (e.g. indigestion, pain, headache etc), that is used to make an individualised diagnosis.

Insomnia provides a good example of how treatment may be refined and individualised. Specific points can be used to promote sleep. So, these would be used for someone with depression who also found it difficult to sleep but may not be used if insomnia was not a problem. Insomnia itself can be further differentiated. Different points are chosen if there is difficulty in falling asleep as opposed to waking up in the night. Similarly, if the insomnia is accompanied by night sweats different points may be selected.

Surprisingly, little attention has been paid to the quality of acupuncture provided in clinical trials, even though poor quality acupuncture may lead to misleading results. Fortunately, things are beginning to change. Relatively recently, a means to evaluate the quality of acupuncture has been developed: the NICMAN scale (National Institute for

Complementary Medicine Acupuncture Network)¹³. The recent systematic review on depression, Armour et al 2019, used the NICMAN scale³. Evaluating the quality of acupuncture is a complex problem and much more work will need to be done. Nevertheless, the Armour et al 2019 represents an important step in the scientific evaluation of acupuncture.

NICE Guideline NG222 Depression in adults: treatment and management

The Guidelines state (p100)9:

There was some evidence of effectiveness and cost effectiveness for the combination of acupuncture and antidepressants but the committee were aware this evidence was based on Chinese acupuncture, which is different to Western acupuncture and so these results may not be applicable to the UK population, ...

Trials conducted in China report larger effects when compared to those conducted outside of China³. During the consultation process, the guideline committee highlighted the concern that this may be due to acupuncture being more commonplace in China which might lead to higher expectations.¹⁴ Cultural differences may play a role. However, perhaps more likely, the difference is because clinical trials in China provide more treatment sessions. A greater total number of treatments is related to a greater reduction in the severity of depression³. Clinical trials in China often provide 30 to 40 treatments whereas outside China, 12 treatments or less is common. The failure to provide an adequate number of treatments is a common problem with clinical research conducted in the West for all conditions, not just depression.

During the Guideline consultation the committee raised the concern that there was a lack of appropriately trained and competent people to deliver acupuncture for depression¹⁴. British Acupuncture Council members are fully trained and competent. BAcC members can deliver acupuncture similar to that provided in China. The acupuncture in MacPherson et al (2013), the large high-quality trial conducted in UK, was provided by BAcC members. Of course, it would not be possible to establish all the necessary clinical services overnight, however, without inclusion in the guidelines there is no impetus to develop the services. If the committee had taken a more pragmatic approach, then acupuncture services could be developed.

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