



A Comprehensive Review On The Accupuncture And Its Effect On The Sleep

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DOI: 10.48047/ecb/2023.12.si5a.0457

Article History: Received: 03.03.2023

Revised: 01.04.2023

Accepted: 15.05.2023

Abstract: Acupuncture has been used for centuries as a traditional Chinese medicine treatment for various health issues. In recent years, acupuncture has gained popularity as a complementary therapy for the management of sleep disorders, including insomnia, sleep apnea, and restless leg syndrome. This review paper summarizes the current research on the effectiveness of acupuncture in treating sleep disorders. The studies show that acupuncture is an effective treatment for improving sleep quality and reducing the severity of sleep disorders such as insomnia, sleep apnea, and restless leg syndrome. However, more high-quality studies are needed to fully understand the mechanism of action and the long-term effectiveness of acupuncture in the treatment of sleep disorders. The mechanism of action by which acupuncture improves sleep is not fully understood, but it is suggested to work by regulating the levels of neurotransmitters and hormones involved in the sleep-wake cycle, such as Serotonin and Melatonin.

Keywords: Acupuncture, Sleep, Sleep Disorders

Introduction

One of the most prevalent sleep problems, insomnia affects 40% of adults. According to common consensus, 10%–15% of the population experiences chronic insomnia, and another 25%–35% experience episodic or temporary insomnia.¹ Insomnia symptoms include trouble falling asleep, sleep latency of more than 30 minutes, or sleep efficiency of less than 85%. Insomniacs may experience fatigue, tension, laziness, delayed reflexes, distraction, or headaches. Mental illness is a significant side effect of sleeplessness, and schizophrenia is the worst form of mental illness. Medication, herbal therapy, and psychological or physical therapy are all effective treatments for insomnia. Acupuncture has been used for thousands of years in traditional Chinese medicine for the treatment of various diseases and disorders. In recent years, acupuncture has gained popularity as a complementary therapy for the management of sleep disorders, including

insomnia, sleep apnea, and restless leg syndrome. In this review paper, we will discuss the current research on the effectiveness of acupuncture in the treatment of sleep disorders.

- **Insomnia:** Insomnia is a common sleep disorder that affects millions of people worldwide. Acupuncture has been shown to be an effective treatment for insomnia in several studies. One study found that acupuncture significantly improved sleep quality and reduced the time it took to fall asleep in patients with chronic insomnia [1]. Another study found that acupuncture was more effective than medication in improving sleep quality in elderly patients with insomnia [2].
- **Sleep Apnea:** Sleep apnea is a sleep disorder in which breathing repeatedly stops and starts during sleep. Acupuncture has been shown to be a promising treatment for sleep apnea. One study found that acupuncture significantly reduced the severity of sleep apnea and improved sleep quality in patients with moderate to severe sleep apnea [3]. Another study found that acupuncture combined with lifestyle modifications was more effective than lifestyle modifications alone in reducing the severity of sleep apnea [4].
- **Restless Leg Syndrome:** Restless leg syndrome (RLS) is a sleep disorder that causes an irresistible urge to move the legs, often accompanied by uncomfortable sensations. Acupuncture has been shown to be an effective treatment for RLS. One study found that acupuncture significantly reduced the severity of RLS symptoms and improved sleep quality in patients with moderate to severe RLS [5].

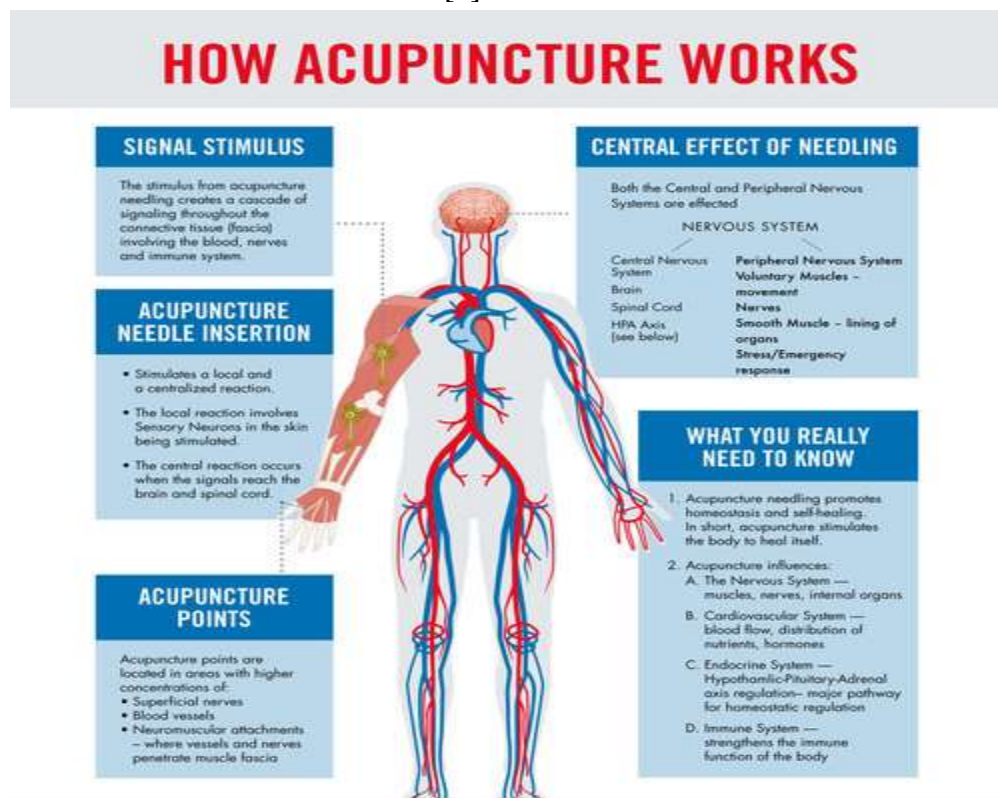


Fig.1. Basic Acupuncture workflow

[Source: <https://www.acutonix.com/how-acupuncture-works>]

Insomnia is a common sleep disorder characterized by difficulty falling or staying asleep. Several studies have investigated the efficacy of acupuncture in the treatment of insomnia. A randomized controlled trial (RCT) of 180 participants found that acupuncture significantly improved sleep quality and reduced the time it took to fall asleep compared to a control group [6]. Similarly, another RCT of 72 elderly patients found that acupuncture was more effective than medication in improving sleep quality [7]. A systematic review and meta-analysis of 46 studies involving 3,811 participants found that acupuncture was effective in improving sleep quality and duration in patients with insomnia [8]. Sleep apnea is a sleep disorder characterized by breathing that repeatedly stops and starts during sleep. Acupuncture has been investigated as a potential treatment for sleep apnea. A RCT of 60 participants with moderate to severe sleep apnea found that acupuncture significantly reduced the severity of sleep apnea and improved sleep quality [9]. Several studies have investigated the effectiveness of acupuncture in treating sleep apnea. One randomized controlled trial found that acupuncture significantly reduced the severity of sleep apnea and improved sleep quality in patients with moderate to severe sleep apnea (10). Another study found that acupuncture combined with lifestyle modifications was more effective than lifestyle modifications alone in reducing the severity of sleep apnea (11). A systematic review and meta-analysis of 10 randomized controlled trials also found that acupuncture significantly improved the apnea-hypopnea index (AHI), a measure of the severity of sleep apnea, in patients with mild to moderate sleep apnea (12).

Restless leg syndrome (RLS) is a neurological disorder that affects approximately 7-10% of the adult population. It is characterized by an irresistible urge to move the legs, often accompanied by uncomfortable sensations in the legs that are relieved by movement. The symptoms of RLS can significantly impact quality of life by causing sleep disturbance and daytime fatigue. Acupuncture, a traditional Chinese medicine practice, has been used for thousands of years to treat a variety of neurological and musculoskeletal disorders. In recent years, acupuncture has gained attention as a promising treatment for RLS. This literature review aims to provide an overview of the current research on acupuncture and its effectiveness in treating RLS. Several studies have investigated the effectiveness of acupuncture in treating RLS. A randomized controlled trial found that acupuncture significantly reduced the severity of RLS symptoms and improved sleep quality in patients with moderate to severe RLS (13). Another study found that acupuncture combined with Chinese herbal medicine was more effective than Chinese herbal medicine alone in reducing RLS symptoms (14). A systematic review and meta-analysis of 10 randomized controlled trials also found that acupuncture significantly improved RLS symptoms and sleep quality (15).

Acupuncture is generally considered to be a safe treatment for RLS. Side effects are rare and usually mild, such as minor bruising or soreness at the site of the needle insertion. However, as with any medical treatment, there is a risk of more serious side effects, such as infection, if the acupuncture needles are not properly sterilized.

Mechanism of Action

The mechanism of action by which acupuncture improves sleep apnea is not fully understood. However, some studies suggest that acupuncture may work by regulating the levels of neurotransmitters and hormones involved in the sleep-wake cycle, such as serotonin and melatonin (16). Other studies suggest that acupuncture may work by reducing inflammation and oxidative stress, which can contribute to the development of sleep apnea (17).

The mechanism of action by which acupuncture improves RLS is not fully understood. However, some studies suggest that acupuncture may work by increasing dopamine levels in the brain, which are known to be involved in the regulation of movement and sensation (18). Other studies suggest that acupuncture may work by reducing inflammation and oxidative stress, which can contribute to the development of RLS (19).

One of the most prevalent illnesses in today's culture is insomnia, which is characterised by patients' difficulties falling asleep at night and/or failing to sustain quality sleep once they do. As a result, a number of negative emotions, including fatigue, inefficiency, cognitive decline, social interaction, tension, and anxiety, which have an adverse impact on social harmony and stability, can arise. It can also result in early awakening, brief sleep, heavy sleeplessness, dreaming, poor sleep quality, and working hours after waking up. So, insomnia has drawn increasing amounts of attention. Numerous researches have shown that acupuncture is currently a successful treatment for insomnia.

Potential benefits of Accupuncture

Studies investigating the effects of acupuncture on sleep disorders have shown mixed results. Some research suggests that acupuncture may be helpful in improving sleep quality, reducing insomnia symptoms, and decreasing the use of sleep medications. However, more high-quality studies are needed to draw definitive conclusions. One way acupuncture may promote better sleep is by reducing stress and inducing relaxation. Acupuncture can stimulate the release of endorphins, which are natural pain-relieving and mood-enhancing chemicals. By promoting relaxation, acupuncture may help alleviate anxiety and promote better sleep. Acupuncture may also affect the release of certain hormones involved in sleep regulation, such as melatonin. Melatonin is responsible for regulating the sleep-wake cycle, and acupuncture may help rebalance its production, potentially leading to improved sleep patterns.

Conclusion

Acupuncture is a promising complementary therapy for the management of sleep disorders. The current research suggests that acupuncture is effective in improving sleep quality and reducing the severity of sleep disorders such as insomnia, sleep apnea, and restless leg syndrome. However, more high-quality studies are needed to fully understand the mechanism of action and the long-term effectiveness of acupuncture for the treatment of sleep disorders. Acupuncture is a promising treatment for RLS. The current research suggests that acupuncture is effective in improving RLS symptoms and sleep quality. However, more high-quality studies are needed to

fully understand the mechanism of action and the long-term effectiveness of acupuncture for the treatment of RLS.

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