

Impact of Acupressure Therapy on Sleep Quality in Adults with Insomnia

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Abstract

Insomnia is one of the most common sleep disorders among adults and is characterized by difficulty initiating sleep, maintaining sleep, or achieving restorative sleep despite adequate opportunities for rest. Poor sleep quality can negatively affect physical health, mental well-being, cognitive functioning, and overall quality of life. Although pharmacological treatments are widely used, concerns regarding side effects, dependency, and long-term effectiveness have increased interest in complementary and alternative therapies such as acupressure. The reviewed studies suggest that acupressure therapy can significantly improve sleep quality among adults with insomnia. Participants receiving acupressure reported improvements in sleep duration, sleep efficiency, sleep onset latency, and overall sleep satisfaction. Several studies also demonstrated reductions in nighttime awakenings, fatigue, anxiety, and stress levels, which are commonly associated with sleep disturbances. Acupressure was generally found to be safe, well tolerated, and associated with minimal adverse effects. Evidence from the reviewed literature indicates that acupressure therapy may be an effective complementary approach for improving sleep quality in adults with insomnia. Its non-invasive nature, low cost, ease of application, and favorable safety profile make it a promising alternative or adjunct to conventional treatments. However, further high-quality randomized controlled trials with larger sample sizes and standardized intervention protocols are needed to strengthen the evidence and establish clear clinical recommendations.

Keywords: Acupressure, Insomnia, Sleep Quality, Sleep Disorders, Complementary Therapy

Introduction

Sleep is a fundamental biological process that plays a vital role in maintaining physical health, cognitive performance, emotional stability, and overall well-being. Adequate sleep is essential for restoring bodily functions, supporting memory consolidation, regulating mood, and promoting optimal daytime functioning. However, sleep disturbances have become increasingly common in modern society, with insomnia being one of the most prevalent sleep disorders affecting adults worldwide. Insomnia is characterized by persistent difficulty in initiating sleep, maintaining sleep, or experiencing restorative sleep despite having adequate opportunity and circumstances for sleep. Individuals with insomnia often report symptoms such as prolonged sleep onset, frequent nighttime awakenings, early morning awakening, and poor sleep quality. These sleep disturbances can result in daytime fatigue, impaired concentration, reduced productivity, mood disturbances, and diminished quality of life. Long-term insomnia has also been associated with an increased risk of cardiovascular diseases,

depression, anxiety disorders, obesity, and weakened immune function. The prevalence of insomnia has increased significantly due to factors such as stress, anxiety, lifestyle changes, irregular work schedules, excessive screen time, and aging. Given its widespread impact on public health, effective management of insomnia is an important concern for healthcare professionals and researchers. Conventional treatment approaches include pharmacological therapies, cognitive behavioral therapy for insomnia (CBT-I), sleep hygiene education, and relaxation techniques. Although sleep medications can provide short-term relief, their long-term use may be associated with side effects, tolerance, dependency, and withdrawal symptoms. As a result, there has been growing interest in complementary and alternative therapies that offer safe and non-invasive approaches to improving sleep quality. Acupressure is one such therapy that has gained increasing attention in recent years. Derived from Traditional Chinese Medicine (TCM), acupressure involves applying manual pressure to specific points on the body known as acupoints. According to TCM principles, stimulating these points helps restore the balance of vital energy, or Qi, thereby promoting physical and psychological well-being. Modern scientific explanations suggest that acupressure may influence the nervous system, enhance relaxation, improve blood circulation, and stimulate the release of neurotransmitters and hormones involved in sleep regulation. Several studies have investigated the effectiveness of acupressure in improving sleep quality among individuals experiencing insomnia and other sleep disturbances. Research findings indicate that acupressure may help reduce sleep onset latency, increase sleep duration, decrease nighttime awakenings, and improve overall sleep satisfaction. Its simplicity, affordability, minimal side effects, and potential for self-administration make it an attractive option for adults seeking alternative or complementary methods of managing insomnia.

Definition and Classification of Insomnia

Insomnia is a common sleep disorder characterized by persistent difficulty in initiating sleep, maintaining sleep, or obtaining restorative sleep despite having adequate opportunity and appropriate conditions for sleep. Individuals with insomnia often experience dissatisfaction with the quality or quantity of their sleep, which can lead to daytime impairments such as fatigue, reduced concentration, mood disturbances, irritability, and decreased overall functioning.

According to clinical guidelines, insomnia is diagnosed when sleep difficulties occur regularly and result in significant distress or impairment in social, occupational, educational, or other important areas of functioning. The condition may affect individuals of all ages and can vary in severity, duration, and underlying causes.

Classification of Insomnia

Insomnia can be classified in several ways based on its duration, cause, and pattern of sleep disturbance.

1. Based on Duration

Acute (Short-Term) Insomnia

Acute insomnia lasts for a few days to several weeks and is often triggered by stressful life events, emotional distress, illness, travel, or changes in daily routine. Symptoms usually resolve once the underlying cause is addressed.

Chronic Insomnia

Chronic insomnia is characterized by sleep difficulties occurring at least three times per week for three months or longer. It may significantly affect physical health, mental well-being, and quality of life and often requires comprehensive management.

2. Based on Cause

Primary Insomnia

Primary insomnia occurs independently and is not directly associated with another medical, psychiatric, or sleep disorder. The exact cause may not always be identifiable.

Secondary Insomnia (Comorbid Insomnia)

Secondary insomnia results from underlying conditions such as anxiety, depression, chronic pain, cardiovascular diseases, respiratory disorders, medication use, or substance abuse. It is the most common form of insomnia encountered in clinical practice.

3. Based on Sleep Pattern

Sleep-Onset Insomnia

This type involves difficulty falling asleep at bedtime. Individuals may spend a prolonged period lying awake before sleep begins.

Sleep-Maintenance Insomnia

Sleep-maintenance insomnia is characterized by frequent awakenings during the night and difficulty returning to sleep after awakening.

Early-Morning Awakening Insomnia

Individuals with this type wake up earlier than desired and are unable to return to sleep, resulting in reduced total sleep duration.

Mixed Insomnia

Mixed insomnia involves a combination of difficulties in falling asleep, staying asleep, and waking too early.

Understanding the definition and classification of insomnia is important for accurate diagnosis, appropriate treatment planning, and evaluation of therapeutic interventions such as acupuncture therapy. Different types of insomnia may respond differently to treatment approaches, highlighting the need for individualized management strategies.

Prevalence of Insomnia Among Adults

Insomnia is one of the most common sleep disorders affecting adults worldwide and represents a significant public health concern. It is characterized by persistent difficulties in initiating sleep, maintaining sleep, or achieving restorative sleep, resulting in impaired daytime functioning. The prevalence of insomnia has increased over recent decades due to changing

lifestyles, increased stress levels, aging populations, and the growing burden of chronic health conditions.

Research indicates that a substantial proportion of adults experience insomnia symptoms at some point in their lives. Epidemiological studies estimate that approximately 30% to 35% of adults report occasional symptoms of insomnia, while about 10% to 15% experience chronic insomnia severe enough to affect daily functioning. The prevalence varies across countries, age groups, and populations due to differences in diagnostic criteria, cultural factors, and study methodologies.

Insomnia is more common among older adults, primarily because of age-related changes in sleep patterns, increased prevalence of chronic illnesses, medication use, and reduced sleep efficiency. Women are also more likely to experience insomnia than men, particularly during periods of hormonal changes such as pregnancy, menstruation, and menopause. Psychological factors, including anxiety, depression, and stress, further contribute to the higher prevalence observed among females.

Certain occupational groups are at greater risk of insomnia. Shift workers, healthcare professionals, emergency service personnel, and individuals working long or irregular hours often experience disruptions in their sleep-wake cycles, increasing the likelihood of sleep disturbances. Lifestyle factors such as excessive caffeine consumption, alcohol use, smoking, physical inactivity, and prolonged exposure to electronic devices before bedtime can also contribute to insomnia.

The prevalence of insomnia is particularly high among individuals with chronic medical and psychiatric conditions. Diseases such as cardiovascular disorders, diabetes, chronic pain, respiratory illnesses, and mental health disorders are frequently associated with sleep disturbances. In many cases, insomnia coexists with these conditions, creating a cycle in which poor sleep worsens health outcomes and underlying illnesses further disrupt sleep.

The widespread occurrence of insomnia has significant implications for public health. Poor sleep quality is associated with reduced productivity, impaired cognitive functioning, increased accident risk, decreased quality of life, and higher healthcare costs. As awareness of sleep health continues to grow, there is increasing recognition of the need for effective and accessible interventions to address insomnia and improve overall well-being.

Effects of Insomnia on Physical and Mental Health

Insomnia is a common sleep disorder that can have profound effects on both physical and mental health. Adequate sleep is essential for maintaining normal physiological functions, emotional stability, cognitive performance, and overall well-being. When sleep is disrupted over an extended period, individuals may experience a wide range of adverse health consequences that affect their quality of life and daily functioning.

Effects on Physical Health

Chronic insomnia can negatively impact various bodily systems and increase the risk of several health problems. One of the most common physical consequences is daytime fatigue and reduced energy levels, which can impair work performance, physical activity, and daily tasks.

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Individuals with insomnia often report persistent tiredness, weakness, and decreased motivation.

Insufficient sleep can also affect the immune system, reducing the body's ability to fight infections and illnesses. Studies have shown that people with chronic sleep disturbances may be more susceptible to colds, flu, and other health conditions due to weakened immune responses.

Insomnia has been linked to an increased risk of cardiovascular diseases, including hypertension, coronary artery disease, heart attack, and stroke. Poor sleep may contribute to elevated blood pressure, increased inflammation, and disturbances in metabolic regulation, all of which can negatively affect cardiovascular health.

Additionally, chronic insomnia is associated with metabolic disorders such as obesity and type 2 diabetes. Sleep deprivation can alter hormone levels that regulate appetite and glucose metabolism, leading to increased hunger, weight gain, and impaired insulin sensitivity.

Effects on Mental Health

The relationship between insomnia and mental health is complex and bidirectional. Persistent sleep disturbances can contribute to the development or worsening of psychological disorders, while mental health problems can also interfere with sleep.

One of the most common mental health consequences of insomnia is anxiety. Individuals who experience difficulty sleeping often become worried about their inability to obtain adequate rest, which can increase stress and further disrupt sleep patterns. Similarly, insomnia is strongly associated with depression, with many individuals experiencing low mood, feelings of hopelessness, and reduced interest in daily activities.

Insomnia can also impair cognitive functioning, including attention, concentration, memory, learning ability, and decision-making skills. Sleep plays a crucial role in memory consolidation and information processing; therefore, inadequate sleep may reduce academic and occupational performance.

Furthermore, chronic sleep deprivation can lead to irritability, mood swings, emotional instability, and reduced stress tolerance. Individuals may find it more difficult to cope with everyday challenges, increasing the likelihood of interpersonal conflicts and decreased social functioning.

Overall Impact on Quality of Life

The combined physical and psychological effects of insomnia can significantly reduce an individual's quality of life. Persistent sleep disturbances may lead to reduced productivity, increased absenteeism, impaired social relationships, and greater healthcare utilization. In severe cases, chronic insomnia can contribute to long-term health complications and increased risk of accidents due to impaired alertness and reaction time.

Given the substantial impact of insomnia on physical and mental health, effective management strategies are essential. Complementary therapies such as acupuncture may offer a safe and non-invasive approach to improving sleep quality and promoting overall health and well-being among adults with insomnia.

Conclusion

Insomnia is a prevalent sleep disorder that affects a significant proportion of adults and has far-reaching consequences for physical health, mental well-being, and overall quality of life. Persistent sleep disturbances can lead to fatigue, impaired cognitive functioning, reduced productivity, emotional distress, and an increased risk of chronic health conditions such as cardiovascular disease, obesity, diabetes, anxiety, and depression. These adverse effects highlight the importance of identifying effective and sustainable interventions for improving sleep quality. Acupressure therapy has emerged as a promising complementary and non-pharmacological approach for managing insomnia. By stimulating specific acupoints, acupressure may promote relaxation, regulate the nervous system, enhance sleep initiation and maintenance, and improve overall sleep quality. Its non-invasive nature, affordability, ease of administration, and minimal side effects make it an attractive alternative or adjunct to conventional treatments. The evidence reviewed suggests that acupressure can have a positive impact on sleep quality in adults with insomnia, including improvements in sleep duration, sleep efficiency, and overall satisfaction with sleep. Additionally, acupressure may help reduce stress, anxiety, and other factors that contribute to sleep disturbances. However, variations in study designs and treatment protocols indicate the need for further well-designed randomized controlled trials to establish stronger evidence and standardized clinical guidelines. Acupressure therapy represents a valuable complementary intervention for improving sleep quality among adults with insomnia. Integrating acupressure into holistic sleep management programs may contribute to better health outcomes, enhanced well-being, and improved quality of life for individuals experiencing sleep disorders.

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