

Anxiety and Complementary Medicine - A Review Article

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Abstract: *Anxiety disorders (Generalized Anxiety Disorder, social anxiety disorder, panic disorder/ agoraphobia, and post traumatic stress disorder) are the most prevalent psychiatric disorders and are cognate with a high burden illness. Actually this disease occurs due to stress, over thinking and some mental illness. However, the drugs are used to treat anxiety such as diazepam with a huge side effect which slightly kills the human health on a regular dosing. On the other hand, without medication or therapeutic treatments (Allopathy drugs) overcome the anxiety by Acupuncture and electro acupuncture, Aroma therapy and music therapy. All this way described here with detailed information, this article plays a role in different method of treatment to reducing side effects caused by Anti - anxiety drugs. When developing other treatment method, efficacy, safety, adverse effect, interaction, cost, administration and the preference of patient should be considered.*

Keywords: Anxiety, Acupuncture, Aromatherapy, Music Therapy

1. Introduction

A person's life can be significantly impacted by anxiety, a foggy and dreadful emotion characterized by panic [1]. People frequently experience elevated stress as a result of anxiety [2]. When having prolonged stress it can create a negative impact on an individual's health. Pre - operative stress kills patients over the age of 70 undergoing cardiac surgery [3]. Patients suffering from anxiety frequently lose hope in their ability to fight the disease, resulting in a raised heart rate, sleep difficulties, digestion issues, loss of appetite, and weight loss [4]. Anxiety disorders patients frequently vividly envisage future situations, which are frequently accompanied by increased anguish and a perceived increased risk of unfavorable consequences. This proclivity for catastrophic thinking might exacerbate their anxiety and add to their overall suffering [5]. Self - management measures can give patients with momentary anxiety relief, but they are often connected with resistance to making critical lifestyle adjustments [6]. The unwillingness of older persons to seek psychological treatment limits their ability to properly manage anxiety by preventing them from accessing appropriate support and solutions. Loss of interpersonal interactions, as well as negative emotions such as loneliness and anxiety, can cause severe discomfort in older persons, thus raising the risk of suicide behavior [7]. Children are not getting the necessary treatment in the United States for anxiety. The use of social media and anti - black racism are some of the mental health concerns for getting anxiety in them. Parents need to be conscious of their children's psychological health, especially if they are manifesting signs or symptoms of suicidal ideation [8]. According to the World Health Organization (WHO), the COVID - 19 pandemic has had a substantial impact on psychological health, especially among healthcare professionals such as doctors and nursing students. During the pandemic, quarantine and social isolation measures contributed to the onset of mental diseases such as worry

and stress in individuals [9]. This epidemic resulted in increased anxiety among pregnant women, who are bothered about giving birth in a hospital for panic of getting the corona virus [10]. Patients with covid - 19 have a significant level of anxiety as a result of incompatibility with sleep patterns and poor standard of life as a result of isolation treatment. These side effects can slow and complicate their rehabilitation [11]. Individuals who have had a stroke frequently develop anxiety as a result of the condition's physical and mental impact. A stroke's life - altering aspect, as well as significantly limits in mobility, communication, and daily functioning, can all contribute to elevated levels of anxiety in stroke survivors [12]. Many women have increased levels of anxiety throughout menopause. Increased anxiety and emotional sensitivity is seen in menopause - related hormonal changes by affecting neurotransmitter levels in the brain. Furthermore, the physical and psychological changes associated with menopause can cause worsening anxiety symptoms in certain people [13]. Anxiety impairs erectile function and ultimately results in erectile dysfunction. Anxiety's physiological and psychological effects may interfere with the body's regular systems for building and sustaining an erection [14]. Individuals suffering from awake bruxism, a disease characterized by severe tooth grinding or clenching when awake, may experience anxiety as a result of increased masticatory muscle activity. Chronic muscle tension and discomfort associated with awake bruxism might contribute to increased stress and anxiety in those who suffer from it. Addressing both the physical symptoms of bruxism as well as anxiety management might be critical for total treatment and alleviation Post - traumatic stress disorder (PTSD) can arise as a result of institutional maltreatment in childhood) [15]. A child's psychological health can be significantly impacted by the traumatic experiences experienced during institutional abuse, and these effects might last for a long time [16]. In persons with anxiety disorders, the amygdala's resting - state functional connectivity can change. Individuals suffering from anxiety disorders may have altered amygdala

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connection patterns, a critical brain location involved in emotional processing, and fear reaction control. Its anomalies can lead to the patients' heightened anxiety reactions [17, 18]. The prevalence of attachment insecurity is higher in midlife adults who came from poor backgrounds, which can help to fuel the emergence of pessimistic feelings [19]. The stress of caring for HSCT (Hematopoietic Stem Cell Transplant) patients may cause carers to feel anxious [20]. Increased heart rate, blood pressure, sympathetic activity, and pain perception are among the physiological reactions associated with anxiety [21]. The delivery of anti - neoplastic therapy can cause anxiety [22]. The most typical emotional and psychological issues are anxiety disorders [23]. Paroxetine (selective serotonin reuptake inhibitor), used for anxiety, initially can make symptoms worse [24]. Non - natural medications are no longer regarded as the best method for lowering patient anxiety due to their severe adverse effects. To manage patient anxiety, a variety of treatments, including those found in adjuvant medicine, have become available [25]

2. Acupuncture and Electro Acupuncture

Acupuncture is a Chinese treatment, that deals with thin needs pierced through skin and used for relieving pain. It is effective in treating anxiety [26]. Acupuncture can improve a patient's overall quality of life by reducing physical ailments [27]. Acupuncture can effectively reduce the anxiety of PD patients [28]. Combined with medicine and exercise, acupuncture is an effective supplemental treatment for fibromyalgia. Acupuncture with other therapies can help people minimize their need for painkillers while also providing long - term benefits that improve their overall health [29]. A combination of acupuncture and Mindfulness - Based Therapy (MTT) as found to have reduced anxiety. It plays a key role in mediating therapeutic effects in multifaceted treatment approaches for chronic tension - type headaches, notably in terms of reducing depressiveness, and anxiety. Acupuncture contributes to positive outcomes in managing tension - type headaches [30]. It has demonstrated its effectiveness in alleviating anxiety symptoms among individuals diagnosed with Generalized Anxiety Disorder (GAD). Notably, acupuncture offers this therapeutic benefit while presenting fewer side effects compared to some other treatment options. By undergoing acupuncture sessions, GAD patients can experience a reduction in their anxiety levels, leading to an improved sense of well - being. This alternative approach to managing anxiety provides a potentially favorable option for those seeking relief with minimal adverse effects [31]. Electroacupuncture (EA) treatment successfully alleviating preoperational anxiety and reducing discomfort during upper endoscopy procedures. Preoperational anxiety can have negative consequences such as sustained anxiety after surgery, increased postoperative sensitivity to pain, and suppressed immune activity. However, EA treatment has emerged as a potential solution to address these issues. By utilizing electrical stimulation in combination with acupuncture, EA treatment can effectively reduce preoperative anxiety, leading to a more relaxed state before surgery. Additionally, EA treatment has been found to minimize the discomfort experienced during gastroscopy procedures [32]. Patients who received Electroacupuncture (EA) treatment had less severe insomnia and anxiety

symptoms. By having the combination of electrical stimulation and acupuncture, EA treatment offers a holistic approach to managing these symptoms [33]. Transcutaneous Electrical Acupuncture Stimulation (TEAS) stimulates specific acupoints in the body using a combination of electrodes + traditional Chinese acupuncture principles, offering relief from symptoms and aiding in the recovery process. TEAS, unlike traditional acupuncture, does not use needles. Instead, it applies electrical stimulation to targeted acupoints through electrodes placed on the skin's surface. This stimulation promotes symptom relief and aids in the healing process by activating the body's inherent healing mechanisms. TEAS is a non - invasive and possibly effective technique to address a variety of health concerns for persons seeking the benefits of acupuncture. TEAS has been demonstrated to help cancer patients reduce depression and anxiety while also enhancing their quality of life. This type of treatment, which combines electrical stimulation and acupuncture principles, has shown promising results in relieving the mental discomfort that cancer patients frequently endure [34]. Continuous waves refer to a constant and uninterrupted flow of electrical stimulation during EA treatment. This waveform is often used to promote overall relaxation and pain relief, which can indirectly contribute to reducing anxiety and depressive symptoms in chronic prostatitis patients. Dilatational waves involve a pulsating pattern of electrical stimulation during EA. By increasing blood flow, dilatational waves may help decrease anxiety associated with CP/CPPS. Continuous and dilatational waves can increase psychological well - being in patients by decreasing anxiety [35]. Acupuncture can reduce acute dental pain both intra - operatively and postoperatively. Acupuncture can help patients manage their anxiety and develop a sense of well - being during dental visits, by modulating the adrenergic nervous system [36]. Acupuncture provides patients with a complete support system, improving their entire quality of life during their cancer journey by reducing physical symptoms [37, 38]. Acupuncture has been shown to alleviate anxiety, which is frequently related to PMD and PMI. Acupuncture promotes mental well - being throughout the premenstrual period by lowering anxiety. Acupuncture has been found to aid with Premenstrual Dysphoric Disorder through various techniques [39]. It is also used in the treatment of anxiety related to alcohol use disorder. Acupoint stimulation can assist balance of the body's energy flow and promote relaxation, which may contribute to the relief of anxiety symptoms typically experienced by people with AUD [40]

3. Aromatherapy

Aromatherapy involves utilizing concentrated essential oils derived from plants, herbs, and flowers to address various ailments. Advocates of aromatherapy trace its roots back to ancient herbal medicine traditions practiced in civilizations like Egypt and India several millennia ago [41]. However, it can have an impact on the immune system and emotions. Aromatherapy using lavender essential oils produced a significant impact in reducing anxiety. The use of inhalation aromatherapy, specifically three drops of ten percent lavender essential oil for fifteen minutes, reduced anxiety in individuals diagnosed with leukemia before receiving a biopsy. Inhalation aromatherapy, using around four drops of

lavender oil for twenty minutes on the day of surgery reduced anxiety levels in patients diagnosed with breast cancer prior to the surgical operation by triggering the brain to release neurotransmitters like serotonin and dopamine. Aromatherapy massage with two times a day treatments of ten minutes each, using the 'Back Massage Guide' technique and five percent lavender oil, produced a reduction in anxiety levels among colorectal cancer patients prior to surgery [42]. Damask rose and peppermint are commonly used plants in aromatherapy, known for their significant improvements in various illnesses, particularly concerning anxiety and sleep quality. Lavender aromatherapy has been shown to considerably reduce anxiety and plasma cortisol amount. Anxiety is reduced by doing aromatherapy using bergamot, lavender, and ylang - lang. *Lavandula angustifolia* Miller (lavender), is one of the widely used essential oils for the treatment of anxiety. Aromatherapy has been shown to reduce anxiety in people with coronary heart disease in a good and therapeutic Lavender, as used in aromatherapy, produces its benefits in a variety of ways. This essential oil from lavender contains flavonoid components as well as nonadecane, heneicosane, and docosane, which contribute to anti - anxiety effects. Lavender consists of linalool and linalyl acetate, which have been also associated with anti - anxiety and anti - depression properties [43]. The olfactory system is stimulated by Damask rose essential oil, which promotes parasympathetic activity. It also causes the release of endorphins and enkephalins while decreasing sympathetic activity. Cortisol and noradrenaline levels are consequently lowered. Substances found in damask rose such as steric, ketones, aldehydes, and terpenes, all help to lessen anxiety. The anti - anxiety effect is produced by Quercetin and Kaempferol by binding with GABA receptors. Because of their affinity for central benzodiazepine receptors, the flavonoids found in damask rose also have hypnotic effects. In aromatherapy, the calming and anxiolytic effects of damask rose are facilitated by these mechanisms [44]. These mechanisms interact to boost the therapeutic effects of Damask rose essential oil aromatherapy. Aromatherapy using peppermint essential oil has powerful effects on a wide range of diseases and conditions, including anxiety, tiredness, stress, grief, and pain. Peppermint activity on the brain's olfactory pathways, which can contribute to anxiety reduction [45]. Test anxiety has been demonstrated to be reduced by both air diffusion using a lamp for 20 minutes and aromatherapy given by hand massage for 10 minutes. Music therapy and Aromatherapy have been demonstrated to be much more effective for lowering test anxiety [46]. Aromatherapy has emerged as a promising complementary and alternative approach for alleviating anxiety symptoms related to Restless Legs Syndrome and pain from arteriovenous fistula puncture in individuals undergoing Maintenance Hemodialysis (MHD). The risks associated with opioid and anti - anxiety medications, which can often lead to drug addiction, aromatherapy offers an integrative treatment approach to alleviate pain and manage anxiety [47].

4. Music Therapy

Music was discovered to have a greater influence on reducing immediate anxiety levels, showing its enormous potential in relieving stress in demanding situations such as

medical clinics and professions such as nursing. Many people use music therapy to manage their moods and emotions daily because it is easily accessible and inexpensive. Music interventions in healthcare settings have become popular. It reduces anxiety levels in people suffering from cancer, coronary heart disease, or preoperative anxiety [48]. Complementary techniques for pain and anxiety relief have grown in popularity due to their lack of side effects, and low cost. Music suppresses the sympathetic nervous system, lowering cortisol levels, activating brain regions linked with emotions, and moderating anxiety levels. Music also serves as a diversion, and it has the potential to reduce pain by changing the connections between the pain center in the brain [49]. It can help people with dental anxiety problems get regular dental care by effectively lowering their blood pressure and heart rate during procedures. It also helps to relieve their pain and worry. Dental anxiety can be treated allopathically with music [50]. It can reduce patients' post - procedure pain and anxiety. The use of soothing music can significantly reduce anxiety caused by invasive treatments. In the event of prostate biopsies, music can be used as an alternative and supplemental therapy to improve patients' well - being. It can save money by eliminating the need for analgesic medicines or shortening hospital stays. As a result, more cost - effective assessments are required in the future [51]. Music has been found to reduce negative emotional states such as worry and dread, which can have a major impact on pain perception and memory. It reduces critical physiological indicators such as systolic blood pressure (SBP) and respiration rate (RR) in patients undergoing cardiac valve replacements [52]. Preterm infant mothers have anxiety and post - traumatic stress disorder. When preterm newborns receive this therapy in the hospital, it not only benefits the infants but also has a good influence on their moms by lowering levels of distress. It also reduces anxiety in patients, who has undergone cancer treatment. Music therapy's stress - relieving effects may extend beyond stabilizing the infant's vital signs and may contribute to generating a positive cycle of reduced stress and increased bonding [53]. Furthermore, music therapy combined with progressive muscle relaxation training, as well as music therapy alone, was found to be useful in reducing exam anxiety among nursing students [54]. Piano instruction for eleven weeks can improve people's ability to detect audio - visual asynchrony and potentially lower their levels of despair, anxiety, and stress. Listening to music has been shown to have positive impacts on mood, anxiety, and stress [55]. Listening to binaural beats (BB) that include delta and theta waves efficiently reduces anxiety levels have been recently discovered. Anxiety has been reduced by combining binaural beats and music therapy [56]. Including music therapy as part of integrative treatment for surgical procedures, with a combination of live and recorded music, can successfully and safely manipulate pre - and post - operative anxiety in women with breast cancer, as well as lower stress and depression [57]. It benefits hypertension patients by efficiently managing their blood pressure and heart rate, as well as lowering anxiety and depression. The effect of sound waves on the brain helps adjust the functional state of the cortex, resulting in the reduction of anxiety, as a result of changes in both physiological and psychological states [58].

5. Conclusion

In the field of medicine in 2022 - 2023, the above studies focused on alternative methods for treating anxiety disorders. These research efforts explored natural remedies and therapies as potential alternatives to pharmaceutical drugs, indicating a shift away from relying solely on medication for individuals experiencing anxiety. In the future, it is important to prioritize further research on natural remedies for anxiety, emphasizing the need to explore and understand their potential in treating this condition. This suggests a growing recognition for the significance of studying alternative approaches to anxiety treatment, particularly those derived from natural sources.

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