**ACUPUNCTURE AS A COMPLEMENTARY ALTERNATIVE IN THE TREATMENT OF ANXIETY: A LITERATURE REVIEW****A ACUPUNTURA COMO ALTERNATIVA COMPLEMENTAR NO TRATAMENTO DA ANSIEDADE: UMA REVISÃO DE LITERATURA****LA ACUPUNTURA COMO ALTERNATIVA COMPLEMENTARIA EN EL TRATAMIENTO DE LA ANSIEDAD: UNA REVISIÓN DE LA LITERATURA**Alberto Mota<sup>1</sup>, Gyzelle Pereira Vilhena do Nascimento<sup>1</sup>, Gabriel Martins Pereira<sup>1</sup>

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<https://doi.org/10.47820/jht.v1i2.16>**RECEIVED: 31/07/2022****APPROVED: 31/08/2022****PUBLISHED: 08/09/2022****ABSTRACT**

The present work consists of the study of Traditional Chinese Medicine (TCM), with the objective of reporting the use of acupuncture as an alternative in the treatment of anxiety contextualizing it with public health, through a literature review in which articles from the last ten years were selected in reliable websites. Acupuncture and proved effective in all selected articles, avoiding the prolonged use of medications that may cause dependence, this practice allows the pharmaceutical professional to apply his area of activity to the patient so that they can use such therapy in their treatment.

**KEYWORDS:** Acupuncture. Anxiety. Anxiolytics.**RESUMO**

O presente trabalho consiste no estudo da Medicina Tradicional Chinesa (MTC), com o objetivo de relatar o uso da acupuntura como alternativa no tratamento da ansiedade contextualizando-a com a saúde pública, através de uma revisão da literatura na qual foram selecionados artigos dos últimos dez anos em sites confiáveis. Acupuntura se mostrou eficaz em todos os artigos selecionados, evitando o uso prolongado de medicamentos que possam causar dependência, esta prática permite ao profissional farmacêutico aplicar sua área de atividade ao paciente para que ele possa utilizar tal terapia em seu tratamento.

**PALAVRAS-CHAVE:** Acupuntura. Ansiedade. Ansiolíticos.**RESUMEN**

El presente trabajo consiste en el estudio de la Medicina Tradicional China (MTC), con el objetivo de informar sobre el uso de la acupuntura como alternativa en el tratamiento de la ansiedad contextualizándola con la salud pública, a través de una revisión bibliográfica en la que se seleccionaron artículos de los últimos diez años en sitios web confiables. La acupuntura y demostró ser eficaz en todos los artículos seleccionados, evitando el uso prolongado de medicamentos que pueden causar dependencia, esta práctica permite al profesional farmacéutico aplicar su área de actividad al paciente para que pueda utilizar dicha terapia en su tratamiento.

**PALABRAS CLAVE:** Acupuntura. Ansiedad. Ansiolíticos.**INTRODUCTION**

Anxiety is an intolerable emotional state, it is related to traumas caused in daily life by environmental, sociological, financial, and personal resources factors (LAZARUS; FOLKMAN, 1986.)

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The person feels distressed and apprehensive, may evolve to Anxiety Disorder (AD) and the individual feeling threatened or with the feeling that he is being persecuted, presenting indirect factors such as eating disorders, consequently the non-treatment of AD will lead to a future depression (MEDINA-GÓMEZ et al, 2019).

The AT is something common today starting adolescence, especially in people from 22 to 45 years of age, mostly female, who has a prevalence of 3.6% of the world population with AD, there is an increase in these proportions of 5.65% in Latin America and Brazil has stood out as the country with the highest number of anxiety cases in the world with 9.3% of its population, in this sense, an interest arose through a literature review discussing a non-drug alternative in the treatment of AD, through complementary practices such as acupuncture (FERNANDES et al., 2017).

Acupuncture has been present in the world for almost 5,000 years, it is a Traditional Chinese Method that originates in the East, based on theories: (GIRÃO, 2008).

- i) Yin Yang, which are energies in perfect harmony and can bring the well-being of the body,
- ii) Theory of the five movements (fire, earth, metal, water and wood), which is part of the elements of generation and mastery that govern the organs of meaning and Zang
- iii) Fu (organs and viscera) related to the flow of Qi (energy) in the blood

Its arrival in Brazil is about 90 years old, developing in areas such as pharmacy, nursing and medicine, its main purpose and treating diseases through specific points known as acupoints, with the beneficial of reducing intoxications caused by conventional treatment through medicines (YAMAMURA, 2001).

Individuals who have resistance to conventional treatment based on anxiolytic drugs can adhere to this complementary practice, which has been effective by promoting an improvement in the patient's mental health and well-being, reducing risks of intoxications and adverse drug reactions, but not ruling out the rational use of acupuncture (PIGNONE; MARTINE, 2011). And has a low theoretical framework and little knowledge of the population and health professionals, acupuncture shows its effectiveness in the treatment of psychic diseases such as depression and anxiety, at specific points in the body to regularize the balance of Qi, which can flow in perfect harmony in the blood, and brings the improvement of symptoms of AD (SNIEZEK; SIDDIQUI, 2013). According to Tu et al. (2019), even though studies are variable, it is suggested that patients resistant to conventional interventions join acupuncture treatment, demonstrating positive effects by decreasing anxiety symptoms.

Thus, the present article aims to report the use of acupuncture as an alternative in the treatment of anxiety contextualizing it with public health and the question of whether acupuncture can be used as an alternative in non-drug treatment in cases of anxiety.



## LITERATURE REVIEW

### ANXIETY

Anxiety is currently a frequent thing, according to the WHO in 2017, 3.4% of the population are affected by AT (WHO, 2017). Common among adolescents and young people up to 35 years of age mostly female, not ruling out other age groups, suffering from restlessness, tension and apprehension that can become chronic, brings consequences in the daily life of individuals (GOYTÁ et al., 2015). Cases of generalized anxiety, stress, obsessive disorders, phobias and panic attacks lead to indirect disorders such as asthma, gastrointestinal dysfunctions, coronary artery disease, thus it is important to study the disease, due to the disorder currently (LOURENÇÃO et al., 2017).

The serotonin neurotransmitter 5-hydroxytryptaline (5-HT) plays a key role in the neurodevelopment and functioning of the brain involved in sleep, mood, neuroendocrine function and anxiety control, when serotonin is reduced, the personality traits of anxiety disorders such as posttraumatic stress disorder, obsessive-compulsive disorder and panic attacks (CALAPOGLU et al., 2010).

Anxiety can be subdivided into 2 classes: state anxiety, manifested in situations of the antigenic environment, causing somatic and cognitive changes; and trait anxiety, manifest themselves in different situations, such as personality, behavior, disposition (SOUZA; TEIXEIRA, ISALSO. LOBATO, 2012). One of the main characteristics of anxiety are psychic symptoms such as mood swings, feeling that something horrible will happen, or that it will be blamed for something, tension, fear, irritability and may evolve into depression; cognitive symptoms related to worry, apprehension and insecurity interlinked to exaggerated scares, stimulating presences of people or nonexistent noises (MENEZES; MOURA; MAFRA, 2017). Somatic (immediate) symptoms such as dry mouth, sweating, short breathing, suffocation, suffocation, increased blood pressure and muscle tension can be seen. (MARI et al., 2002)

A person in a chronic state of anxiety feels weakness, general tiredness including muscle and constant headaches, one can also observe an emotional response to situations of threat, usually accompanied by autonomous characteristics and defensive behaviors such as: restlessness and impatience being common movements with fingers, legs, or feet quickly and repetitively (SILVA, 2010).

### CONVENTIONAL TREATMENT

Anxiolytics are psychotropic drugs that act as an adjunct in the treatment of anxiety, adhering to this treatment people who want to escape their afflictions or anxieties (AZEVEDO; Lima, LIMA; ASUNCIÓN, 2019). In addition to the treatment of pharmacotherapy, it is necessary to prescribe the prescription made by a qualified professional, since these medications can cause intoxication, dependence, behavioral and cognitive alterations, the patient's guidance, and follow-up (MANHE et al., 2011) is necessary. These are the class of drugs that are considered as allosteric modulators of GABA receptors, have analgesic and anxiolytic positive effects (WITKIN et al., 2019).

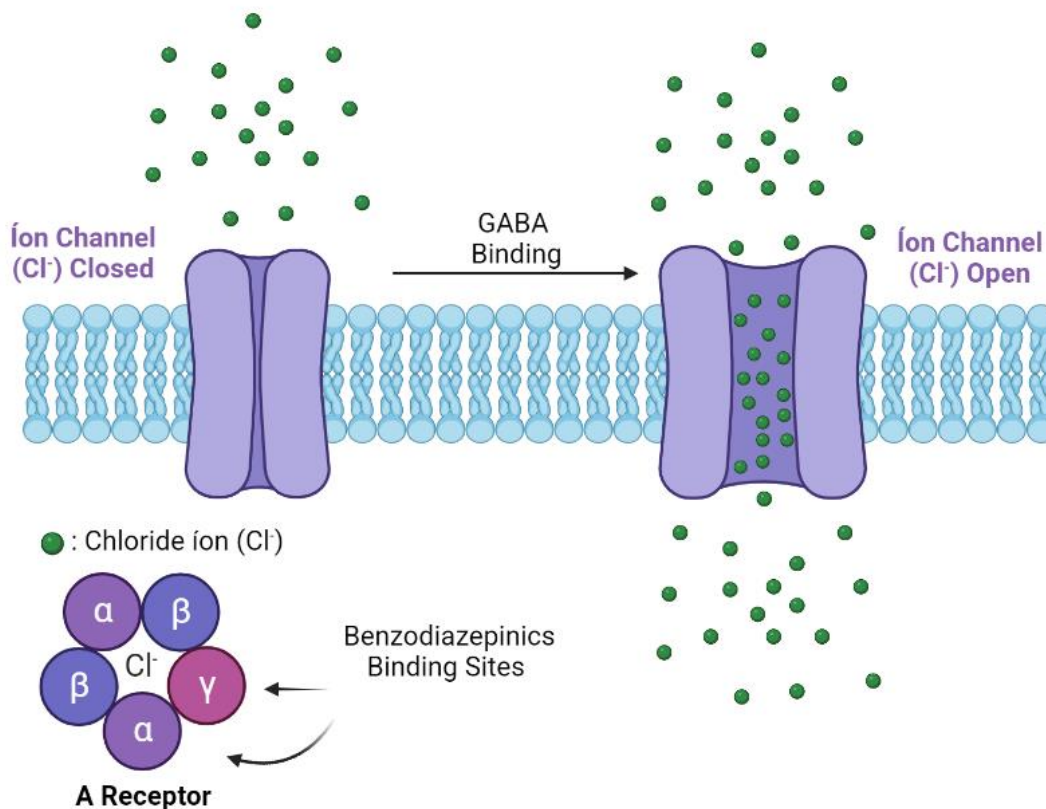
Benzodiazepine (BZD) is a class of psychopharmaceuticals that act by improving anxiety disorders, with muscle relaxant action, hypnotic, anticonvulsant and anxiolytic effect, being one of the

most prescribed drugs in Brazil and Western countries (SILVEIRA; ALMEIDA; CARRILHO, 2019). These drugs play a large role acting in the limbic system, being classified action potential, such as alprazolam for a short half-life of 12 hours, has a better hypnotic effect and those that have a longer lasting action are preferred to treat anxiety, both clonazepam and diazepam have a half-life of 24 hours (BRAGA et al., 2016).

Prolonged use of BZDs can lead to addiction and withdrawal crises, and their rational use is indicated for a period of four months, having their ideal functionality and not bringing risks and allowing patients undergoing treatment to cope with day-to-day traumas. victims of abuse, family members involved in drugs, social and financial life (LAURENT, 2004; SILVEIRA; ALMEIDA; CARRILHO, 2019)

BZDs as alprazolam, clonazepam and diazepam are prescribed for the treatment of seizures, insomnia, panic attacks, anxiety and act as an adjunct in the treatment of schizophrenia and depression, used as a gamma-aminobutyric acid (GABA) receptor allosteric modulator binding on the  $\alpha$  and  $\gamma$  subunits, GABA receptors formed by selectively bound ionic channels mediating rapid inhibition of the Central Nervous System (CNS), being an important target for benzodiazepines increasing the frequency of opening of the receptor channel and chloride ion passage, decreasing the post-bioprobiotic currents shown in **Figure 1** (JACOB et al., 2012).

**Figure 1.** Mechanism of action of benzodiazepines

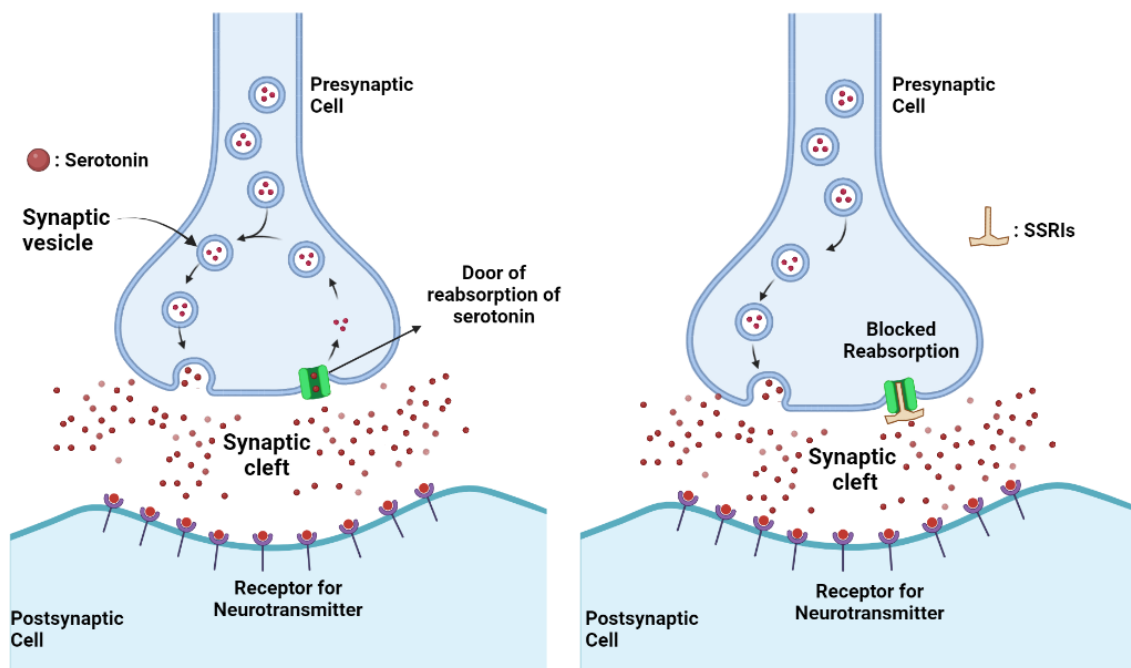


Source: Author. 2022

Clonazepam is effective in the treatment of panic syndrome and anxiety related to it, as it is a benzodiazepine of high affinity of central receptors having non panic effect due to its action on the serotonergic system (VALENÇA et al., 2003). Diazepam is a GABA-positive allosteric modulator because is the CNS depressor agent (AZEVEDO; ARAUJO; FERREIRA, 2016).

Selective serotonin reuptake inhibitors (SSRIs), **Figure 2**, currently considered one of the classes of drugs for the first choice of social anxiety disorder (ATT), showing to be effective with a good tolerance and low side effects, effective drugs: sertraline, escitalopram, fluoxetine and paroxetine, are highly selective for serotonin uptake (5-HT), the well-known SSRIs (Selective serotonin reuptake inhibitors) being well absorbed orally with a half-life of 15 to 24 hours (RANG et al., 2016). Sertraline being an SSRIs has the benefit of having few medicamentosa interactions and has been shown to be safe in people who have psychological diseases related to melancholy but has an indispensable factor that is the gastrointestinal discomforts caused by the drug (RIORDAN et al., 2019).

**Figure 2.** SSRIs Mechanism of Action

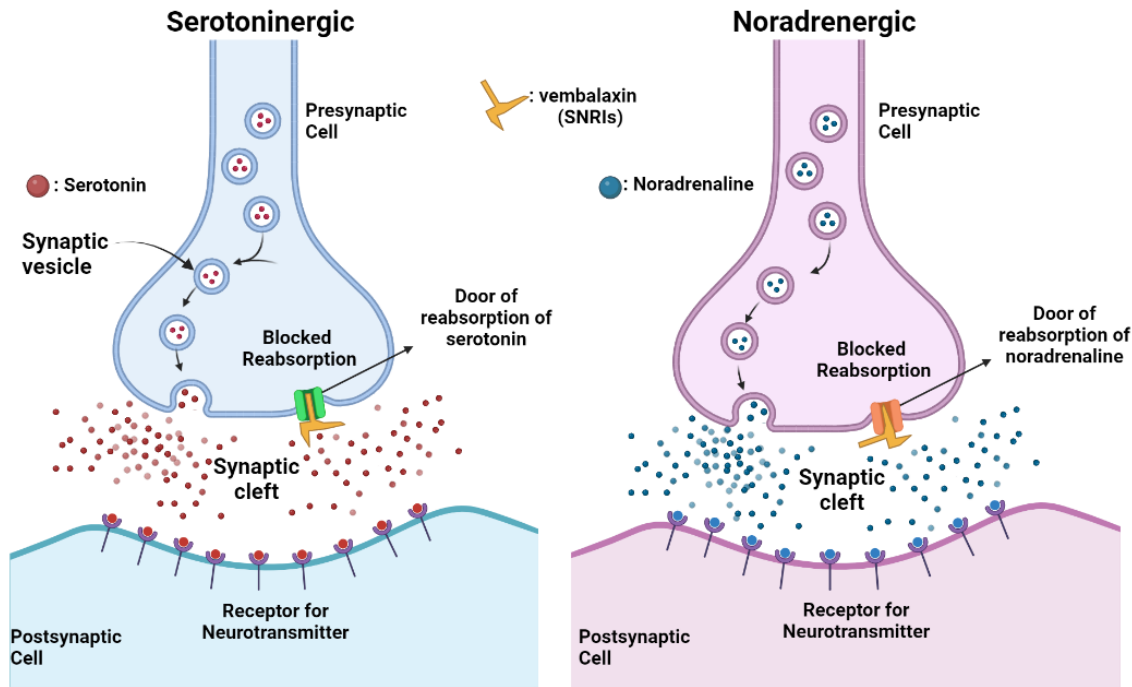


Source: Author 2022.

On the other hand, the serotonin and norepinephrine reuptake inhibitors (SNRIs), such as venlafaxine, which proved effective and had significant results in the treatment of AD, being also considered one of the drugs of first choice (SANTOS et al., 2011). SNRIs are drugs that treat generalized anxiety, social anxiety and panic disorders bind in 5-HT and noradrenaline (NA) transporters, **Figure 3**, because it has affinity to these receptors with varying levels of potency, venlafaxine for example is metabolized by CYP2D6 becoming an active metabolite of devenlafaxine,

with a half-life of 5 hours and its metabolite of 12 hours, with low protein bindings not inhibiting CYP enzymes, at high doses the drug can cause cardiac changes being one of its disadvantages (SHELTON, 2018).

**Figure 3.** SNRIs mechanism of action



Source: Author 2022.

**ALTERNATIVE TREATMENT: ACUPUNCTURE**

Psychotherapy and pharmacotherapy are considered the conventional treatment of anxiety, however the use of long-term drugs can become worrisome, causing dependence, drug interactions and adverse reactions, and there is a need for interventions such as acupuncture a complete alternative, which has been shown to be effective and safe in the treatment of AT, reducing drug reactions and interactions (LI et al., 2019).

Acupuncture arose in China at the average age of approximately 4,500 years, aiming at the cure of diseases through needles and moxas, theoretical and empirical knowledge used in Traditional Chinese Medicine, which consists of the theory in which it originally has a balance in all structures of the organism, acting on energies of Yin and Yang, if these energies are in perfect harmony the organism will be healthy, if otherwise an imbalance will lead to the disease (WEN, 1985). The acupuncture technique stimulates points and reflexes reestablishing balance reaching therapeutic purposes (SILVA, 2007).

The balance is sustained in the body by the gentle flow of an energy called Qi (Ch'i) and the blood called Xue, and the disorder of these energies can cause disease, while the control of the same, health, consists of manual stimulation of needles, in which often there are associations used in therapies

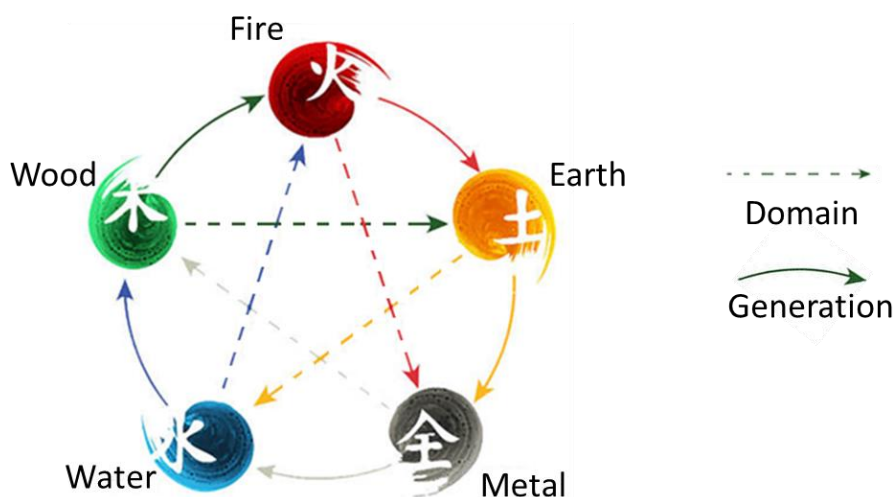


as electroacupuncture with an electric stimulator attached to the needle and acupuncture with matrices, the latter a pressed stick with the plant *Artemisia sinensis* or *Artemisia vulgaris* (TRINDADE, 2017).

Dysfunctions or diseases caused in the body can originate from dietary, environmental, spiritual, and emotional factors altering Qi and Xue, which through acupuncture, by inserting needles at specific points in the body can be improved or minimized pathological factors by restoring the smooth flow (SILVA, 2007).

The five movements (elements) are one of the oldest theories that explain acupuncture, consistent in five elements of basic processes - wood, fire, earth, metal and water, both are linked in a hierarchical cycle of generation and dominance, **Figure 4**, governing different organs of meaning such as: color, flavor, temperature, body tissues and emotions (ANGELI; JOAQUIM; LUNA, 2007). The cycle of generation of the elements arises giving rise through succession of what precedes it, in this way, the fire originates the earth by the ashes, the earth generates the metal by count it, the metal generates to water by dissolving, the water is generated by nourishing the plants, and the wood originates the fire by sustaining combustion (DORIA; LIPP; SILVA, 2012). Promptly the cycle of counter dominance, interrupt the element of origin of its successor, the metal and blown by fire, the wood and cut by the metal, the earth and covered by wood, the water is absorbed by the earth and the fire is extinguished by water (CORDEIRO, 2001).

**Figure 4:** Theory of five movements



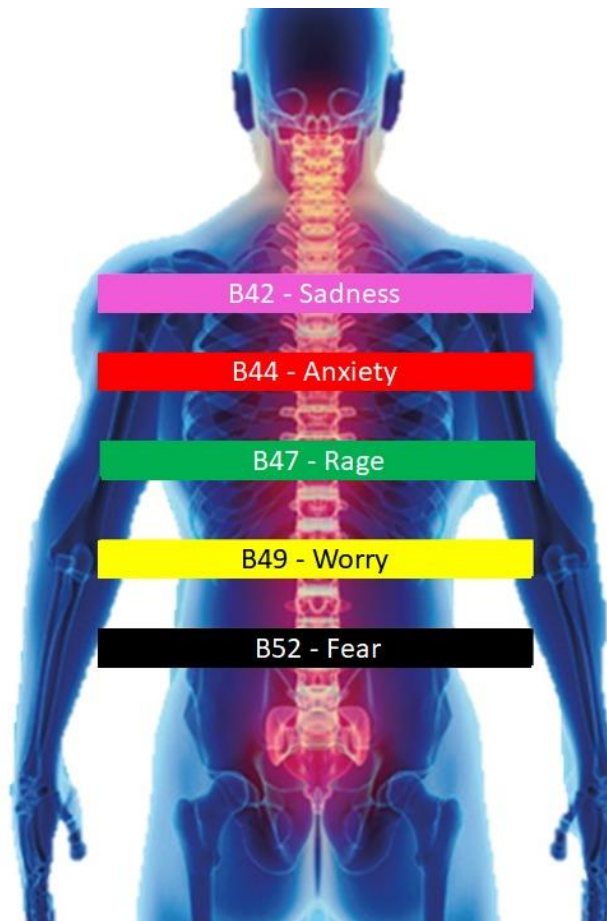
Source: Author, adapted of (ADHIKARI,2022)

The TCM understands anxiety as the disharmony of the spirit, resulting from insufficiency, paralization or excess of *Qi* ou *Xue* in the heart (*Xin*) or organs that affect it, being caused by external factors such as heat, cold, wind, fire, humidity and dryness; internal factors related to anger, sadness, worry and fear; and other factors arising from food, life, trauma and excessive work (CAMPIGLIA, 2004). Anxiety can be due to excesses such as: phlegm fire (humidity excess) of the heart (*Xin*) which in combination with spleen deficiency (*Pi*) can cause anxiety leading to disorder of language, behavior,

and thoughts; and decreased flow of Qi from the heart and liver, the accumulation of phlegm leading to emotional states that can cause TA (ROSS, 2003).

The strengthening of the heart calms the mind by nourishing the blood, toned through acupuncture with the use of specific acupoints, capable of acting intensely on severe causes of anxiety, such as: B-44 (Shentang) **Figure 5**, which relieve anxiety symptoms that may be related to Yin deficiency of the heart (RAMOS, 2015).

**Figure 5 - Beishu Points**



Source: Author

Silva (2010) reported that a 39-year-old female patient stated that from the fourth session of acupuncture treatment there was an improvement in anxiety symptoms, with the progress of treatment in the sixth session, the patient suspended the medications she used. However, there was an improvement in its clinical picture, being oriented the regularity of therapy, which in the long term decreased the intensity of anxiety presented at the beginning of the sessions (SILVA, 2010). TCM has been shown to be significantly effective, both in humans and in animals in reducing AT symptoms, patients say they find a less stressful environment, however, recommendations and punctuality in this treatment should be had to have a desired therapeutic effect (ERRINGTON-EVANS, 2011).



The electrical stimulus in acupoints results in calming effects in AT (ULETT et al., 1998). The combination of auriculotherapy and systemic acupuncture, besides the calming effect, produces a relaxing effect in patients with chronic anxiety disorders (ROCCIA; ROGORA, 1976). According to Wang and Kain (2001), it was discovered through healthy volunteers who received bilateral auricular acupuncture pressure needles at the *Shenmen* Point Figure 6 for a period of 48 hours and reported decreased anxiety levels in this period.

**Figure 6 – Shen Men point, used in ear acupuncture**



Source: Author

In a study with approximately 259 patients with ED, through treatment of integrative medicine, there was a significant decrease of 98.39% of patients who attended at least five sessions, using the combination of acupuncture with massage techniques, showing better efficacy compared to patients with signs of high anxiety (AMORIM et al., 2018).

## **REGULATION AND PERFORMANCE OF THE PHARMACIST IN ALTERNATIVE TREATMENT WITH ACUPUNCTURE**

According to the National Policy of Integrative Practices (NPIP) in the Single Health System (SUS, *Sistema Unico de Saúde*), by ordinance No. 97, of May 2006, the Medicine: Traditional and Complementary and Alternative was implemented in Brazil, where the population can have access to this type of treatment through the public network and specialized centers (BRASIL, 2006).

The WHO from the 1970s has encouraged practices and knowledge related to traditional health and the diversity of biomedicine called Complementary and Integrative Traditional Medicine (CITM), expanding Primary Health Care (PHC) aimed at the clinical and sanitary care of the population, and universal strategies of the SUS in which the TCMs are called Integrative and Complementary Practices

(ICP), among them 80% occur by PHC and the most common are: phytotherapy, homeopathy, body practices and acupuncture (TESSER; SOUSA, THE SOUSA BIRTH, 2018).

According to Contijo and Nunes 2017, there were 150 health professionals with higher education working in the SUS practicing ICP in Itumbiara, Panama (GO) and Araporã (MG), the response rate of 78.7% of the participants, of these 8% are pharmacists. In the study by Marques et al (2011), 35 people who use the SUS and three physicians, 51.42% of the users said they accepted the use of acupuncture after a clear explanation of the method in question, since the doctors said they did not know and, perhaps because they did not know, do not indicate such method.

After the implementation of acupuncture in the SUS, there was an increase in the demand for the population of this complementary therapy (CHIAPETTI; BRAND; COMPARIN, 2019). Known for being a medical specialty since 1995 by the Federal Council of Medicine, which in 34% of countries such as Germany, Australia and Switzerland have the implementation of PIC in their medical schools, being more accepted TCM, already in Brazil even after ordinance 971, is still low the teaching of this method in schools (CARNEVALE et al., 2017). In countries such as Denmark and Norway, 25 to 40% of hospitals have adopted acupuncture treatment services, the most accepted among ICP (SALOMONSEN et al., 2011).

**METHODOLOGICAL PROCEDURES**

The present work consists of a bibliographic review where scientific articles from the last ten years were selected, using the databases of Scielo, Pubmed, Lilacs, Bireme, ProQuest, Web of Science and Science Direct. The time frame of documents of historical relevance was not considered. The following words were used as descriptors: *acupuncture*, *anxiety*, *ansiolitics*, TCM.

**PRESENTATION AND ANALYSIS OF DATA**

Table 1 was elaborated with the objective of serving as a basis for the writing of the "results" section. It was based on the guidelines of Katz's scientific writing book (2009)."

**Table 1**-Table based on Katz (2009) containing: reference/source of scientific articles; text from 10 to 50 words with more relevant information

Reference	Findings
AHLBERG et al., 2016	280 people who suffered from substance abuse and psychic diseases, evaluating the anxiety of these individuals, divided into: auriculoacupuncture according to the protocol NADA (n=80), auriculoacupuncture of the local protocol and control group (relaxations). Both had positive effects, but acupuncture was more effective compared to the control group.
ARVIDSTTER; MARKULUND; TAFT, 2013	In a randomized study, 120 people participated, 108 completed eight weeks of treatment, divided into groups: integrative



	treatment 37 people, acupuncture 36 people and conventional treatment 35 people, 4 to 8 weeks there was an improvement in anxiety in 10% of these, 4 were from the acupuncture group
AU et al., 2015	39 randomized clinical trials for a review, 5 of meta-analysis, using specific points such as <i>Yutang and shenmen</i> , relatively positive effects on acupressure in the reduction of preoperative anxiety related to the control group were obtained.
BAE et al., 2014	An inclusion of 14 publications, six of these were used in the inventory status of State Trait Anxiety (STAI-S), it was reported that acupuncture treatments were more effective than the false acupuncture in preoperative anxiety, mean difference = 5.63, p = <0.00001, 95% CI significantly reducing anxiety in patients treated with acupuncture.
HADDAD-RODRIGUES et al., 2013	A study with 29 infant mothers, divided into an acupuncture group (n=14) and the placebo acupuncture group (n=15), both groups were significantly effective in the treatment of ED, but there was no difference in anxiety levels from true acupuncture to placebo.
KUREBAYASHI et al., 2017	Randomized clinical trial with 180 individuals, divided into: control group (G1), seeds (G2), needles (G3) and adhesive tape (G4). There was a significant difference in anxiety levels (p<0.05), and group 3 was more effective comparing them to the others with a 17% reduction in ED levels.
KOBER et al., 2003	36 patients, divided into 2 groups: 17 people constituted the relaxation group, false group (n=19), individuals who received acupressure showed the following results of anxiety levels 37.6 ± 20.6 to 12.4 ± 7.8 mm, while those who received medications 42.5 ± 29.9 to 46.7 ± 25.9 mm.
LIU et al., 2019	A study with rats, who experienced stress, experienced symptoms like anxiety and using the traditional Chinese method (electroacupuncture and acupuncture), had a significant improvement of rats, decreasing the symptoms of posttraumatic stress.
MAFETONI et al., 2018	A total of 102 women in labor were selected in three groups of 34: intervention (0.8429), placebo (<0.0001) and control (<0.0001), and it was observed during the 120 minutes of treatment, where the intervention group showed a different



	variable from the others, and auriculotherapy was significantly effective in reducing anxiety.
MENÉNDEZ-APONTE Y GUZMÁN et al., 2019	16 patients with thoracic cancer, divided into groups: 8 were required to attend 5 sections of integrative oncology treatment that contained acupuncture, cognitive behavioral therapy, and mindfulness, and 8 as control. The participants who attended the 5 sections, adhered perfectly to the treatment, and had improvement of anxiety.
MICHALEK-SAUBERER et al., 2012	Randomized study with 182 anxious patients before dental treatment, divided into groups, with auriculoacupuncture at relaxation points, the other acupuncture in false points. Both decreased anxiety: auriculoacupuncture from $54.7 \pm 10.8$ to $46.9 \pm 10.4$ , false acupuncture from $52.9 \pm 10.2$ to $48.4 \pm 10$ , in the control group anxiety increased from $51.0 \pm 11.7$ to $54.0 \pm 11.6$ .
PILKINGTON et al., 2007	Of 919 records, 108 studies analyzed, with 12 controlled clinical trials and, of these, 10 were randomized, and 4 trials focused on acupuncture treating anxiety in the perioperative, showing that the results were positive, however, there is no methodology to prove efficacy and further studies are needed.
RAZAVY et al., 2018	96 participants were separated into groups, 47 treated by acupuncture, and an inactive control group with laser simulation (n=49). Data from the first to ninth section were collected showing the efficacy of acupuncture in the treatment of preoperative anxiety, even if the individual did not experience a change in anxiety related to symptomatology.
RIBAS-SILVA, 2016	4 patients with alteration in cortisol, being submitted to ten acupuncture sessions, at identical points in all of them, thus evaluating cortisol levels associated with anxiety, where 100% showed improvement in the condition improving cortisol rates and consequently anxiety and stress decreased.
RIVADENEIRA; REYES; HIDALGO, 2002	50 patients with anxiety, needles were placed at specific points for 20 minutes, advances were observed in the 3rd, 6th and 10th sections, and efficacy was achieved in 98% excess syndrome and the main cause was anxiety and the meridian of the liver being the most affected.
SCHEEWE et al., 2011	A randomized study evaluated the effects of acupuncture in asthmatic children and adolescents, with 46 individuals treated with acupuncture, control group (n=47), respiratory flow was



	improved, presenting a significant difference ( $p = < 0.01$ ) of acupuncture, compared to the control group, improving asthma-related anxiety in these patients treated with CTM.
VIEIRA, 2013	A study with 69 people was divided into: study group ( $n=25$ ), placebo ( $n=22$ ) and control ( $n=22$ ). In the study group, a decrease in anxiety levels ( $p=0.031$ ) and in the other groups did not have significant differences.
WEI et al., 2019	A study with rats that ingested 2.5% of dextran sodium sulfate, causing colitis, used it as electroacupuncture and moxibustion treatment, improved the colon mucosa of the rats and consequently the anxiety that the rats had presented.
WU et al. 2011	A study with 35 people submitted to surgeries, divided into two groups, body acupuncture and ear acupuncture, both showed improvements in preoperative anxiety. The following results were presented: ear acupuncture from ( $57.57 \pm 8.22$ ) to ( $46.32 \pm 6.37$ ) and body acupuncture from ( $55.39$ to $5.41 \pm$ ) to ( $44.82 \pm 6.76$ ).
ZHENG et al., 2011	A study with rats that were submitted to alcohol withdrawal and then evaluated the anxiety of these rats after ethanol withdrawal, showing signs of anxiety. The results showed improvement and decrease in their anxiety after being treated with acupuncture.

**Source:** Author's, 2022

It can be observed that TCM has been shown to be beneficial in the treatment of anxiety both in patients suffering from this condition due to personal problems, family, social and even economic, and in the preoperative period where patients are anxious for the surgery that will be affected, acts in reducing pain and improving the quality of sleep related to anxiety (BONTEMPO et al., 2016), in order to reduce the risks of drug poisoning, or even the association to obtain a satisfactory result for the patient (MASCARENHAS et al., 2019). Although acupuncture has been shown to be significantly effective in the treatment of ED, through specific acupoints, further studies are needed to precisely explain its mechanism of action (VALIANI et al, 2018).

According to Spence et al. (2004), acupuncture significantly improved insomnia, anxiety, fatigue and depression levels because of excretion of 6-sulfateximelatonin, a metabolite of melatonin, which was normalized. Anxiety can be treated with the aid of acupuncture in a promising way of therapy when compared to pharmacotherapy and can lead to a reduction in health costs (CHAO et al., 2019). Acupuncture therapy is an alternative of complementary therapy in neuropsychiatric disorders, including anxiety, thus parameters have been investigated on its efficacy, having significant effects, but not ruling out a possible placebo effect because it does not have the precise explanation of its mechanism of action (MEDEIROS; SAAD, 2009).





Patients may have access to acupuncture in the public network in specialized centers that are implanted in the Unified Health System (SUS) (SANTOS; ESPROTTO; PINHEIRO, 2011). According to Ordinance 9,715 of November 25, 1998, the Ministry of Health approves the National Policy of Integrative and Complementary Practices (PNPIC), which was governed by the National Health Council, thus guaranteeing acupuncture in the SUS by health professionals, including the pharmacist throughout Brazil, as of November 17, 2006, by ordinance 8,536, including acupuncture services by professionals with specialization in this area (SANTOS et al., 2009).

## FINAL CONSIDERATIONS

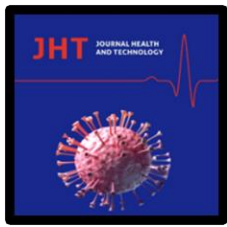
Anxiety affects about 9.6% of the Brazilian population and almost 4% of individuals worldwide, and the treatment of this disease by acupuncture does not have its mechanism of action elucidated, this integrative practice proved to be effective in the articles selected for this study. The Integrative and Complementary Practices in Health, present in the SUS, also with acupuncture, allows the acupuncturist pharmaceutical professional to apply his area of work to the patient so that they can use such integrative therapy and thus avoid the prolonged use of medications that may cause dependence and, in addition, enable the reduction of adverse effects medicines often prescribed for this psychic disorder.

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