Integrative and Complementary Practices in the treatment of anxiety triggered by Covid-19: A narrative review

Práticas Integrativas e Complementares no tratamento da ansiedade desencadeada pela Covid-19:

Uma revisão narrativa

Prácticas Integrativas y Complementarias en el tratamiento de la ansiedad desencadenada por

Covid-19: Una revisión narrativa

Received: 06/30/2024 | Revised: 07/14/2024 | Accepted: 07/16/2024 | Published: 07/19/2024

Louise De Moraes Cheregatti

ORCID: https://orcid.org/0009-0001-8523-1419 Pontifical Catholic University of Poços de Caldas, Brazil E-mail: lolomcheregatti@gmail.com

Amanda Piroli Ribeiro

ORCID: https://orcid.org/0009-0009-9474-0248 Pontifical Catholic University of Poços de Caldas, Brazil E-mail: amandapiroli.ribeiro@gmail.com

Maria Vitoria Alves Osti

ORCID: https://orcid.org/0009-0000-3531-3267 Pontifical Catholic University of Poços de Caldas, Brazil E-mail: osti.vitoria@gmail.com

Ana Clara De Souza Franco

ORCID: https://orcid.org/0009-0004-7308-9074 Pontifical Catholic University of Poços de Caldas, Brazil E-mail: anaclaramilani6@gmail.com

Felipe Rigoni Barros

ORCID: https://orcid.org/0009-0005-4773-8664 Pontifical Catholic University of Poços de Caldas, Brazil E-mail: feliperb@outlook.com

Kolawole Banwo

ORCID: https://orcid.org/0000-0003-4154-3688 University of Ibadan Faculty of Science, Nigeria E-mail: kolabanwo@yahoo.com

Adriana Balbina Paoliello

ORCID: https://orcid.org/0009-0009-2554-3523
Pontifical Catholic University of Poços de Caldas, Brazil
E-mail: adrianabalbina1603@gmail.com

Abstract

Complementary Integrative Practices (ICPs) have the main objective of promoting self-care and awakening in individuals an awareness of what health is in its entirety. The therapeutic techniques used in ICPs act efficiently in the treatment of anxiety in patients affected by the Coronavirus, as demonstrated by scientific literature. The objectives of this study are to explain the mental health disorders resulting from the Covid-19 pandemic and list the role of ICPs in health promotion, prevention, and treatment of these conditions, emphasizing homeopathy, phytotherapy, acupuncture, aromatherapy, music Therapy, and meditation. The study found that ICPs significantly alleviated anxiety and depression, reduced the demand for medications, and shortened hospital stays, highlighting their potential as low-risk, accessible adjuncts to conventional treatments. Further research is needed to optimize their application in clinical settings.

Keywords: Music therapy; Phytotherapy; Meditation; Aromatherapy; Acupuncture.

Resumo

As Práticas Integrativas e Complementares (PICs) têm como principal objetivo promover o autocuidado e despertar no indivíduo uma consciência do que é saúde em sua totalidade. As técnicas terapêuticas utilizadas nas PICs atuam de forma eficiente no tratamento da ansiedade em pacientes afetados pelo Coronavírus, como demonstrado pela literatura científica. Os objetivos deste estudo são explicar os distúrbios de saúde mental decorrentes da pandemia de Covid-19 e listar o papel das PICs na promoção, prevenção e tratamento dessas condições, com ênfase em homeopatia, fitoterapia, acupuntura, aromaterapia, musicoterapia e meditação. O estudo encontrou que as PICs aliviaram significativamente a

ansiedade e a depressão, reduziram a demanda por medicamentos e encurtaram o tempo de internação, destacando seu potencial como coadjuvantes de baixo risco e acessíveis aos tratamentos convencionais. Mais pesquisas são necessárias para otimizar sua aplicação em ambientes clínicos.

Palavras-chave: Musicoterapia; Fitoterapia; Meditação; Aromaterapia; Acupuntura.

Resumen

Las Prácticas Integrativas y Complementarias (PICs) tienen como principal objetivo promover el autocuidado y despertar en los individuos una conciencia de lo que es la salud en su totalidad. Las técnicas terapéuticas utilizadas en las PICs actúan de manera eficiente en el tratamiento de la ansiedad en pacientes afectados por el Coronavirus, como lo demuestra la literatura científica. Los objetivos de este estudio son explicar los trastornos de salud mental resultantes de la pandemia de COVID-19 y enumerar el papel de las PICs en la promoción, prevención y tratamiento de estas condiciones, enfatizando la homeopatía, fitoterapia, acupuntura, aromaterapia, musicoterapia y meditación. El estudio encontró que las PICs aliviaron significativamente la ansiedad y la depresión, redujeron la demanda de medicamentos y acortaron las estancias hospitalarias, destacando su potencial como complementos accesibles y de bajo riesgo a los tratamientos convencionales. Se necesitan más investigaciones para optimizar su aplicación en entornos clínicos.

Palabras clave: Musicoterapia; Fitoterapia; Meditación; Aromaterapia; Acupuntura.

1. Introduction

Complementary medicine has been gaining visibility in Brazil. This health practice is currently valid for government agencies since the Brazilian National Ministry of Health itself applies incentives to Alternative Medicine, which is a new paradigm for the health area. Therefore, alternative practices are an option for social medicalization practices (Tesser & Barros, 2008). Health is defined as a complete state of physical, mental, and social well-being, not just the absence of disease. In this context, the main objective of Integrative Complementary Practices (ICPs) is to promote self-care and to awaken in the individual the awareness of health integrality (Oliveira et al., 2020).

Alarming situations, such as those during the Covid-19 pandemic, required scientific efforts, which focused on the pathogen and the biological risk presented to identify measures, contain, treat, and prevent occurred during the Covid-19 pandemic, required scientific efforts, which focused on the pathogen and the biological risk presented to identify measures, containing, treating, and preventing the disease (Oliveira et al., 2020). In December 2019 in the city of Wuhan, Hubei province, China, an infectious disease caused by a virus from the coronavirus family (SARS-CoV-2) was discovered and because of its rapid spread, until January 19, 2021, 93 million cases had already been registered (World Health Organization, 2020). Among the changes caused by Covid-19, physical symptoms such as cough (with or without sputum), myalgia, fever, fatigue, and hemoptysis, headache and diarrhea were observed. Also, progression to dyspnea led patients to hospital admission, demanding oxygen therapy, ICU (Intensive Care Unit) admission and mechanical ventilation, with complications such as heart injuries and secondary infections. (Huang et al., 2020; Chen et al., 2020).

The design of public health measures was essential to reduce the SARS-CoV-2 contagion curve, especially care in the context of social distancing. On the other hand, the psychological implications imposed by social isolation measures tend to be underestimated and sometimes neglected. The fear of contamination, the uncertainties about the future, the excess of work in a home-office regime, the concern about the health of family members and colleagues, and the excessive search for information about the current moment implied damage to the mental health of the population in general (Bezerra et al., 2020). Such situations led to the emergence of a chronic stress condition, which contributed to the development of depression and anxiety symptoms (Taylor, 2019).

This implies poor planning and a lack of strategies for preventing mental illnesses caused by epidemic periods. It is in this context that the ICPs acted as an adjuvant in health promotion, prevention, and treatment of mental health problems arising or not from pandemics. In addition, they are also presented as a set of complementary treatments to various pathologies that were exacerbated during this period.

Given this reality, the use of ICPs as a possibility of mental health care through treatments such as homeopathy, phytotherapy, acupuncture, and other methods such as aromatherapy, reiki, reflexology, etc. has been and will always be of great help to the population. Thus, the objectives of this study are to explain the mental health disorders arising from the Covid-19 pandemic and to categorize the role of ICPs in the promotion, prevention, and treatment of health of these conditions, with an emphasis on homeopathy, phytotherapy, acupuncture, aromatherapy, music therapy and meditation.

2. Methodology

This is a narrative literature review study on the use of integrative and complementary practices in the context of the Covid-19 pandemic, covering homeopathy, phytotherapy, acupuncture, aromatherapy, music therapy, and meditation. A search was conducted in the PubMed and SciELO libraries, in addition to the Google Scholar page, in search of scientific articles to compose the review, using the keywords integrative and complementary practices, homeopathy, phytotherapy, acupuncture, aromatherapy, music therapy, meditation, Covid-19 and mental health, combined in different search strategies. We considered the articles that, after reading the title, abstract, and body of the text, best aligned with the objectives proposed in this study. As an inclusion criterion, only articles with full texts available free of charge, in Portuguese or English, in the last 3 years were considered. Incomplete articles or articles published out of the period defined by the authors were excluded from the study. In addition, documents from international organizations, such as the WHO, were consulted and metadology of scientific research through Pereira et al. (2018).

3. Results and Discussion

At the end of 2019, an outbreak caused by a new species of coronavirus, Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), appeared in Wuhan, China. The coronavirus disease 2019 (Covid-19), a disease triggered by the pathogen, soon spread throughout the world and in March 2020 the World Health Organization (WHO) declared a state of pandemic. As a response to the rampant spread of the virus, social distancing measures were adopted worldwide, leading to a collective lockdown in which some countries lasted for months. And even with the official cessation of lockdowns, a relevant percentage of society remained in relative isolation, going outside only when necessary. Against the backdrop of sustained social distancing and the Covid-19 emergency itself, mental health problems have increased in incidence and intensity across all sectors of society. The term "cynophobia" has been used by psychiatrists and psychologists to define and designate such disorders. According to Hartmann (2020), this term has been used to specify the worry, anxiety, and fear of contracting Covid-19, in addition to referring to the functional impairments and psychological impact caused by individuals who were infected with the disease.

Several ways to contain or reduce this damage in the mental health sphere have been proposed throughout the pandemic, such as several integrative and complementary practices (ICPs). ICPs have become fundamental for the care of the mind and body, in addition to providing autonomy and independence in the search for health (Bezerra et al., 2020).

Homeopathy can be used in the prevention and treatment of epidemic diseases, in the latter case, called homeoprophylaxis, as long as the medicines are chosen according to the principle of symptomatic similarity, involving the symptoms peculiar to the epidemic (Teixeira, 2011). This concept is based on the premises that underlie the treatment and prevention of epidemic diseases described by Hahnemann in the Organon and the Minor Writings (Hahnemann, 2013; Golden, 2012).

In March 2020, the Brazilian Association for Recycling and Assistance in Homeopathy (Abrah, 2020), launched a protocol with a bibliographic survey of homeopathy recommended in the current circumstances, which contemplate some of the

effects caused by Covid-19. Regarding homeopathy, it was observed in the study conducted by Abreu and Martinazzo (2021), that 38% of the interviewees have made or are making use of homeopathies for the prevention of Covid-19.

Experimental models suggest that Passiflora and Gelsemium, among others (Dutt et al., 2010; Diniz et al., 2022) are drugs indicated for the treatment of anxiety and sleep disorders. In a murine model, the species *Helichrysum stoechas* had its anxiolytic activity evaluated in light-dark box and marble burial tests. After the experiments, the extract exerted a dose-dependent effect (30-100 mg/kg) similar to the effect of Diazepam, with the absence of locomotor impairment, sedative behavior, or cognitive impairment, indicating its good tolerability profile compared to the reference drug (DZP). In addition, *Helichrysum stoechas* did not exert any efficacy in pain control, further highlighting its selectivity in controlling anxiety-related behavior (Borgonetti et al., 2020).

The methanolic extract of Gelsemium sempervirens had its maximum anxiolytic activity perceived at the dose of 150 mg/kg in mice submitted to the elevated cross-maze test. In addition, the fractions and subfractions obtained from the extract were investigated through column chromatography, where a significant anxiolytic potential was observed, without any effect on motor coordination. In toxicity studies, no mortality occurred even at the highest dose used.

Phytotherapy, used as an ally in many anti-anxiety treatments, during and after the Covid-19 pandemic, has numerous results. According to (Di Renzo et al., 2020), in the face of the uncertainties of the pandemic, such as financial instability, the uncertainty of the present and future, loss of loved ones, fear of tomorrow, loneliness, in addition to the lack of trained professionals, much was said about the victims of Covid-19, but without giving due importance to the victims of anxiety and depression, which appeared in alarming numbers in society at the time of the pandemic. Many health professionals began to recommend the use of herbal medicines to their patients, because they are economically more accessible to the population, in addition to presenting fewer side effects and presenting the possibility of association with allopathic medicines. According to Gárcia & Solís (2016), both Passiflora and Valerian are used in an attempt to alleviate insomnia, anxiety, stress, and other factors that can interfere with the individual's emotions, and, therefore, an option in an attempt to placate the symptoms intensified by the pandemic.

According to Sarris (2018), purple passionflower (*Passiflora incarnata*) is an important medicinal plant in herbal medicine to treat anxiety or nervousness, opioid withdrawal symptoms, insomnia, neuralgia, and seizures, among other pathologies. In addition, in an observational study conducted by (Canella et al., 2019), favorable results were presented for the use of *P. incarnata* due to its anxiolytic effect reported by six of the eight participants. *Eucalyptus globulus* recently showed inhibitory activity at the site of action of a protease similar to chymotrypsin 3CL pro, having an action similar to GBLE which exhibited the most potent inhibition activity of virus Mpro protease (SARS-CoV-2 3CL pro), in the study by (Xiong et al., 2021).

Clinical cases present evidence of results, but notoriously do not cover sufficient data to support the use of acupuncture as a therapy during the follow-up of Coronavirus. They serve as an instigation for large-scale therapy. Acupuncture as a therapy, along with cupping, moxibustion, and phytotherapy techniques, presented a scientific basis for use in various situations and symptoms presented by patients affected by Covid-19, demonstrating to this public a lower risk, in addition to assisting as an adjunct to drug treatment during hospitalization. Its use would be even more important for health systems, emphasizing hospitals and Covid-19 treatment centers, as it decreases the demand for medicines and shortens the length of stay, favoring the hospital medical system that at the moment, in many places, is collapsed (Copatti et al., 2021).

Laser acupuncture may be an effective and safe therapy to treat symptoms of anxiety and depression in SARS-COV-2 victims. However, it has the added advantage of being less invasive than traditional acupuncture, making it an attractive option for mental health, without the risks present in traditional drug therapies. Further studies, especially random clinical trials, are recommended to prove the efficiency of Laser Acupuncture (Salvador & Fernandes, 2023).

While the use of aromatic essential oils holds promise for improving sleep condition, morning care, and relieving psychological tension, we still face considerable challenges. The blending of essential oils to achieve these effects requires a deeper understanding of their chemistry, toxicity, therapeutic potential, and aromatic properties. In addition, uncertainties persist regarding the clinical efficacy of essential oils, with unresolved questions about the route of administration, dosage, safety, and delivery systems (Wakui, et al., 2023). It is crucial to recognize that claims about the ability of essential oils to protect against or treat Covid-19 lack evidence. However, this does not rule out the usefulness of essential oils in respiratory and psychological support, highlighting the importance of an informed and cautious approach.

Although research points to many limitations of music therapy, such as the scarcity of quality studies aimed at patients with Covid-19, they highlight the potential of this emerging field (Franzói, 2022). Amid the pandemic, music therapists adapted to the context, using technological resources to offer remote care, evidencing benefits and challenges. However, it is necessary to consider various strategies that promote quality of life and well-being, in addition to emphasizing the need for adequate training to ensure the effectiveness and safety of these interventions, especially in times of need and emergency (Junior, 2020).

Scientific research on meditation during the Covid-19 pandemic does not features a fundamental principle that ensures quality and reliability in a laboratory environment because such studies were conducted in quarantine or lockdown environments not controlled by research teams (Bursky, 2023), so there is a greater risk of associated biases. However, statistically, the numbers prove that such findings reinforce the relevance of meditation as an effective therapeutic approach for various psychological disorders, supported by scientific evidence and applied in clinical contexts (Tang, 2015) proving that meditation plays a significant role in the treatment of psychological disorders, as indicated by several studies (Wullstein, 2019).

The ICPs addressing homeopathy, phytotherapy, acupuncture, aromatherapy, music therapy, and meditation have a scientific basis for use in various situations and symptoms presented by patients affected by Covid-19, demonstrating that they have a low risk to the patient and help as an adjunct to drug treatment during hospitalization and at home. Its use would be even more important for health systems, emphasizing hospitals and Covid-19 treatment centers, as it reduces the demand for medicines and decreases the length of hospital stay, favoring the hospital medical system (Copatti et al., 2021). However, a greater number of studies on this subject will always be of great benefit to society, both for health professionals and for the population in general.

3.1 Homeopathy

Homeopathy is characterized as an example of Integrative and Complementary Practices (ICPs), which are therapeutic and disease prevention methods, currently available in the Unified Health System (SUS), which have efficacy in results and low cost. It was systematized by the German physician Cristhian Samuel Hahnemann, who considered the health-disease process to come from the imbalance of the vital force of the human body (Morais et al., 2021). The practice was officially introduced to Brazil in 1840 by the French physician Dr. Benoit-Jules Mure, who was a disciple of Hahnemann. In addition, it began to be recognized as a medical specialty in 1980 by the Federal Council of Medicine and was included in the Unified Health System since 2006 (Maia et al., 2019). Homeopathy uses the same substances that cause the symptoms of diseases to treat them through successive dilutions in water, until an amount is enough to relieve these signs, without intensifying them.

The importance of homeopathy lies in offering the patient a natural therapeutic system, without the presence of adverse reactions or drug interactions, and which seeks to understand the individual as a whole, considering physical, mental, social, and cultural aspects. (Galhardi et al., 2013). In the context of the mental aspect, anxiety is a disorder present in society and affects all age groups. In addition, it is a reaction that occurs in the nervous system of the individual in the face of a situation of danger, fear, psychological stress, or disturbances. (Fernandes et al., 2023). However, if these feelings are identified with frequency or intensity, anxiety is considered not only a reaction but also a disorder (Costa et al., 2017). On the other hand, it can be considered

"normal" in cases of manifestations that precede a situation in which there is a lot of expectation, such as travel, evaluation, or birth of someone close. However, correctly selected homeopathic medicine improves self-confidence and controls anxiety, which suggests that homeopathy can be very useful in treating personality disorders. (Maia et al., 2019).

During the pandemic of the new coronavirus, there was an increase in cases of mental illness that, according to data from the World Organization (WHO), exceeded the rate of 25% worldwide (Paulino & Yoem, 2022). Mandatory social isolation has corroborated the triggering of cases of anxiety in healthy people, in addition to the increase in symptoms in people with pre-existing mental illness (Ramírez-Ortiz et al., 2020). Homeopathy contributes to the physical and spiritual well-being of patients (Teixeira, 2011), and was, therefore, a good option for treating anxiety in the pandemic and post-Covid.

According to the results of (Abreu & Martinazzo, 2021), the use of homeopathic medicines was observed as a way to combat and prevent anxiety, in addition to acting against respiratory diseases caused by viruses. Another study was carried out by (Sousa et al., 2023), stating that in the first months of Covid-19, there was a significant increase in the number of sales of homeopathic drugs. All these observations suggest that adjunctive homeopathic treatment may be useful in treating patients confirmed with the SARS-CoV-2.

3.2 Phytotherapy

Attention to phytotherapy has increased greatly in recent years, due to society seeking medicines of natural origin, which are better absorbed by the body and which generates a better quality of life for society, this considerable attention has come from prescribers, users and researchers in recent years, despite this entire theme and use being part of popular culture, it is a therapy that is increasingly being disseminated (Costa, 2019).

From a better understanding of the properties of vegetables and their use, there was progress in the development of medicines used in contemporary and cartesian medicine (Botsaris & Machado, 1999). Integrative herbal medicine values patient integration, with the participation and contribution of several professionals from different areas and backgrounds (Ceccim & Feuerwerker, 2004).

In this period of social isolation, marked by uncertainty, doubts, anguish, unemployment, emotional imbalance, physical and mental exhaustion, loss and grief, anxiety appears as one of the biggest social consequences, which tells about the way the world works and, consequently, how this directly affected people, who suffer from being too eager for the future and not having guarantees of it (Nicolini., 2020). Phytopharmaceuticals were initially highlighted by China itself, the country of origin of the Coronavirus, as well as in other Eastern countries, so that complementary therapies achieved great cultural and governmental support in these places, intensifying studies on the subject (Delgado et al., 2020).

Examples of this can be cited, such as the herbal medicine Lianhua Quinke developed during the pandemic, which when combined with clinical care showed a more concrete response (Xiao et al., 2020); and *Ginkgo biloba* extract (GBLE), which had an inhibitory effect on the Covid-19 virus in its action, therefore being an excellent option for blocking viral replication (Xiong et al., 2021).

3.3 Acupuncture

More than 4,000 years ago, acupuncture emerged, having its initial practices in North and South Korea and Japan. Its effectiveness has been studied since its arrival in the Western world (1970). It aims to realign energy, redirecting it through stimulation of acupuncture points. This therapy is practiced through laser, pressure, and the most well-known form, thin metal needles, which, in turn, stimulates the peripheral nerves, causing an alteration in the neurotransmitters of the central nervous

system (Goyatá et al., 2015). Acupuncture is part of holistic medicine, which looks at the individual, centered on the individual and their health, considering all aspects of the being's relationship with himself and his environment (Bousfield, 2023).

Acupuncture is one of the most used practices of traditional Chinese medicine, to treat complaints of pain, various symptoms, and psychological conditions, which tend to cause great disorders. According to the most recent reports published by the WHO, there is an urgent need for transformation in the field of mental health care. Data shows that one of the main causes of disability is related to mental disorders. In extreme situations such as the Covid-19 pandemic, in the first year alone there was an increase of more than 25% in cases of psychological disorders, such as anxiety and depression (Wen, 2020; Lima, 2022).

At this juncture, it is important to highlight the historical role of acupuncture in epidemics. The predecessor of acupuncture in the west, the frenchman George Soulié de Morant, had his first contact with acupuncture during a cholera epidemic and followed the good recovery of patients treated with this therapy (Vieira, 2017).

In addition to physical changes, emotional symptoms also become important in Covid-19. (Liu et al., 2020) observed an impact on the central nervous system and mental health of individuals with Coronavirus, somatization processes, obsessive-compulsive disorder, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoia, and psychosis that presented in a severe form in the initial stage of infection. The authors suggested that mental health problems were more severe before or at the time of hospital discharge and decreased significantly during the first 12 months after hospital discharge. However, average symptom levels remained above healthy norms even at 12 months and continued to improve, albeit slowly, thereafter.

Considering that ICPs contributes to the individual's quality of life, self-care, and overall balance (Barros, 2007), the benefits of acupuncture can help in the management of signs and symptoms triggered by diseases and act in the prevention, promotion, and recovery of health, as well as in the care of patients with and after covid-19 (Ren et al., 2020; Tillu et al., 2020; Mustafa et al., 2020.)

In cases of anxiety, the search for scientific evidence about the effects of acupuncture is relevant in clinical practice, to contribute to the reduction of pharmacological treatment for patients, (Goyatá et al., 2015; Xu & Zhang, 2020; Ruela et al., 2021).

3.4 Aromatherapy

Little is documented about the precise history of aromatherapy and its beginnings, though it is known that the egyptians pioneered one of the earliest distillation techniques to extract oils from plants like cedar, cloves, and cinnamon, primarily for embalming purposes. The term "aromatherapy" was first introduced in 1937 by a French chemist René-Maurice Gattefosse, who coined it following a serendipitous burn incident that led him to explore the healing properties of essential oils. Gattefosse claimed that lavender oil significantly aided in healing his burn. During World War II, a French surgeon Jean Valnet utilized essential oils to treat soldiers' wounds, underscoring the therapeutic potential of aromatherapy (Sameer, 2019).

Aromatherapy is a holistic practice that involves the use of essential oils derived from fresh plants for therapeutic effects. These oils are pure, volatile substances extracted from different plant parts, secreted by their reproductive organs, and obtained through the distillation process, carrying significant healing properties (Ayza, 2005).

Covid-19 can result in respiratory complications and psychological impacts. Olfactory aromatherapy (OA), which uses essential oils by inhalation, is effective in treating respiratory infections by reducing inflammation and strengthening the immune system. Additionally, aromatherapy is effective in alleviating psychological symptoms. In healthcare institutions, it is notable that nurses working in non-Covid departments experienced greater fear of infection and exhibited more social distancing

behaviors, displaying symptoms of PTSD and neuroticism. They also felt increased stress due to public criticism and the demands of their work compared to their counterparts in Covid-19 departments (Dolić, 2022).

When dealing with subjective cognition and psychological disorders, improvement in the perception of stress, work concerns, and fatigue conditions of personal exhaustion was evidenced, which reported an improvement in psychological assessment after treatment with bergamot oil in these professionals (Hung, 2023). Using bergamot essential oil before bedtime promotes relaxation of the mind and body, facilitating deep sleep. Additionally, it enhances mood and wakefulness when used upon waking.

In the student field, a randomized clinical trial revealed that during the pandemic, the widespread recommendation of the use of masks generated stress in many students. In a study involving 62 university students in a double-blind, controlled trial and randomized it sought to investigate the effects of stress relief when attaching aromatic seals to masks. One group used aromatic stamps with orange and lemon essential oil, while the control group used identical stamps without scent. The results indicated significant improvements in the group using aromatic labels, based on the depression, anxiety and stress scale-21 (DASS-21). The use of these aromatic seals may be beneficial in relieving mental stress and improving mental health while wearing masks (Wakui et al, 2023).

3.5 Music therapy

The history of music therapy is marked by a journey that spans eras and cultures. From ancient cross-cultural beliefs to interpretations influenced by social contexts, the trajectory of this therapeutic practice reveals an evolution that over time has moved from a non-scientific understanding to a social science-based understanding, and more recently, studied by neuroscience (Thaut, 2015).

Sound, rhythm, melody, and harmony are not just musical elements. They are also instruments that help to bring comprehensive and differentiated care to citizens and patients. Through music therapy, it is possible to promote communication, learning, and others to achieve physical, emotional, mental, social, and cognitive needs (Brasil, 2017).

Music therapy is described as being able to bring people to inner calm, activate self-therapeutic potential, and promote psychosomatic rebalancing. Music therapy used during Covid-19 is highlighted as an important complementary therapy to deal with psychological disorders resulting from all kinds of restrictions imposed by the pandemic. Music therapy combined with integrative complementary practices in the SUS interact not only as a tool for the emotional well-being of patients, but also for the prevention of psychopathological sequelae that may arise due to these associated social restrictions, and a greater positive influence on the immune system (Biquiza, 2022).

Based on a scoping review carried out, we highlight the incipience, both internationally and nationally, of publications on the use of music therapy and/or musical intervention in patients diagnosed with Covid-19. Among the scientific evidence found, they include improvements in vital parameters, such as increased oxygen saturation, reduced respiratory rate, and aid in weaning from mechanical ventilation. In addition, there was a reduction in anxiety, improved quality of life, and stimulation of social connection between patients and their families and/or caregivers (Franzói, 2022). Music therapy was not limited only to patients but also reached health professionals directly contributing to improving the emotional state, providing encouragement and feelings of care, consolation, and hope in the face of the challenges faced.

3.6 Meditation

The national policy on integrative and complementary practices in the SUS positions meditation as a technique that directs attention in a non-analytical or discriminative manner, fostering beneficial changes in mood and cognitive performance

(Brasil, 2015). The effectiveness of meditation for improving physical and mental health intentionally highlights factors such as reduced systemic blood pressure, oxygen consumption, and metabolism, thus resulting in health benefits, including reduced anxiety.

According to Benson (1995), who developed mindfulness-based stress reduction therapy (MBSR), he demonstrated effectiveness in treating stress, chronic pain, and depression through the practice of meditation. Neuroscience also highlights that meditation reshapes the brain, contributing to a profound enhancement of human nature (Davidson, 2013). Although meditation was not initially designed to treat psychological problems, it has shown promise in treating depression, anxiety disorders, and psychological stress.

During the Covid-19 pandemic, quarantine-related loneliness and social isolation became prevalent. The voluntary self-isolation of most citizens and the lockdown measures implemented by many governments – in Brazil dated 24/03/2020 – The quarantine resulted in adverse effects on mental health, including symptoms such as post-traumatic stress, confusion, and anger among those who complied with it. Social connection is recognized as a crucial element for human well-being. In response to the challenges of isolation during the pandemic, individuals have sought alternative methods to manage mental health, including meditation practices, which are viewed as strategies to mitigate the negative effects of social isolation and loneliness (Bursky, 2023). Such isolation is pointed out as an element that contributed to these negative results regarding mental health, with special emphasis on the effects on the elderly and marginalized groups (Pecoits., 2021).

4. Conclusion

The stress and fear caused by widespread Covid-19 have increased physical and psychological pain which, often, has contributed to severe consequences such as anxiety and depression, decreasing people's quality of life. Then, in this study, we were able to verify that there was a significant demand by the world population for the use of integrative practices during the isolation period and after the pandemic, which brought immediate and long-term benefits. Finally, everyone must be aware that ICPs encourage innovative and low-cost practices, being a promising and effective alternative, as it fosters autonomy and independence in the search for a healthy life, not only in pandemic situations.

It is evident that the PICS - National Policy of Integrative and Complementary Practices has been gradually advancing and showing great potential as a treatment method for several diseases, including anxiety. The increase in demand comes from the desire to use natural materials to cure diseases and reduce or reconcile medications in the routine. However, there is no certification regarding the effects of these practices, due to the fact that natural means are used for treatment, which results in criticism and doubts as to whether there is really efficacy and possibility of success. Other than that, it is of great relevance that there is investment for new research and thus enable the development of complete and scientifically proven projects.

Acknowledgements

The authors would like to thank professors Jorge Pamplona Pagnossa and Isabela Bacelar de Assis for all support and assistance.

References

Abreu, L. P. S., & Martinazzo, A. P. (2021). A busca pelo uso de produtos naturais na prevenção de infecções por Covid-19. *Brazilian Journal of Development*, 7(4).

Al-Harrasi, A., & Bhatia, S. (2022). Papel dos óleos essenciais na gestão do COVID-19. Imprensa CRC (pp. 1-4).

Apolinário, J. M. S. S. (2021). Farmacoterapia e utilização da Melissa.

Associação Brasileira de Reciclagem e Assistência em Homeopatia – ABRAH. Protocolo da ABRAH – Pandemia COVID-19. Clínica de Homeopatia – Hospital Servidor Público Municipal São Paulo (HSPMSP).

Associação Médica Homeopática Brasileira (AMHB). (2020, Abril). Estudo preliminar de sintomas e medicamentos prevalentes do "gênio epidêmico" da pandemia de COVID-19 no Brasil. Comitê Especial de Pesquisa COVID-19 da AMHB. Documento disponível como comunicado interno aos associados da AMHB.

Associação Médica Homeopática de Santa Catarina (AMHSC). (2020, Março). Estudo Preliminar para utilização do "gênio epidêmico" da pandemia de COVID-19 em Santa Catarina. Comitê Especial de Pesquisa COVID-19 da AMHB. Documento disponível como comunicado interno aos associados da AMHSC.

Ayza, C. D. (2005). ¿Qué es la aromaterapia?. Revista ROL de enfermería, 28(5), 55-64.

Barros, N. F. (2020). Medicina complementar: uma reflexão sobre o outro lado da prática médica. Annablume: FAPESP.

Benson, H. (1995). Transcendendo o Relaxamento. Record.

Bezerra, D. R. C. (2020). Use of Integrative and Complementary Practices in the social isolation period of COVID-19 in Brazil. Research, Society and Development, 9(11).

Bezerra, D. R. C., Paulino, É. T., Santo, F. H. E., Magalhães, R. S., & da Silva, V. G. (2020). Uso das Práticas Integrativas e Complementares no período de isolamento social da COVID-19 no Brasil. *Research, Society, and Development*, 9(11).

Biquiza, A. S. (2022). Musicoterapia. Revista Revise, 9, 24-37.

Borgonetti, V., Les, F., López, V., & Galeotti, N. (2020). Attenuation of Anxiety-Like Behavior by Helichrysum stoechas (L.) Moench Methanolic Extract through Up-Regulation of ERK Signaling Pathways in Noradrenergic Neurons. *Pharmaceuticals*, 13(12), 472.

Botsaris, A. S., & Machado, P. V. (1999). Introdução à fitoterapia: momento terapêutico fitoterápicos (pp. 8-11). Flora Medicinal.

Bousfield, A. S., Padilha, M. I., Bellaguarda, M. R., & Costa, R. (2023). A Prática da acupuntura por enfermeiras. Revisão Integrativa. *HERE - História da Enfermagem Revista Eletrônica*, 14.

Brandão, M. G. L. (1996). Plantas medicinais. In C. B. Guerra & F. A. R. Barbosa (Orgs.), *Programa de Educação Ambiental na Bacia do Rio Piracicaba* (pp. 173-193). Belo Horizonte: UFMG.

Brasil. (2006). Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. *Política Nacional de Práticas Integrativas e Complementares no SUS - PNPIC-SUS*. Brasília: Ministério da Saúde.

Brasil. (2007). Agência Nacional de Vigilância Sanitária. RDC nº 67 de 8 de outubro de 2007. Regulamento Técnico sobre Boas Práticas de Manipulação de Preparações Magistrais e Oficinais para Uso Humano em farmácias e seus Anexos. Diário Oficial da República Federativa do Brasil, Poder Executivo, Brasília, 09 out. 2007.

Brasil. (2015). Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Política nacional de práticas integrativas e complementares no SUS: atitude de ampliação de acesso (2ª ed., 96 p.). Brasília: Ministério da Saúde.

Brasil. (2017). Ministério da Saúde. Secretaria de Atenção Primária à Saúde. O SUS das Práticas Integrativas: Musicoterapia. Publicação em 19/07/2017. Em: https://aps.saude.gov.br/noticia/2415.

Bursky, M., Kosuri, M., Carson, K. W., Babad, S., Iskhakova, A., & Nikulina, V. (2023). The Utility of Meditation and Mindfulness-Based Interventions in the Time of COVID-19: A Theoretical Proposition and Systematic Review of the Relevant Prison, Quarantine and Lockdown Literature. *Psychological Reports*, 126(2), 557-600. https://doi.org/10.1177/00332941211048734.

Canella, C., et al. (2019). Patients experiences attributed to the use of Passiflora incarnata: A qualitative, phenomenological study. *Journal of Ethnopharmacology*, 231, 295-301.

Ceccim, R. B., & Feuerwerker, L. (2004). O quadrilátero da formação para a área da saúde: ensino, gestão, atenção e controle social. *Physis*: revista de saúde coletiva, 14, 41-65.

Copatti, A. C., Coppati, S. L., Sá, C. A., & Corralo, V. S. (2021). Utilização da Acupuntura para tratamento de pacientes com COVID-19: uma Revisão Integrativa. *Congresso Internacional em Saúde*, 8.

Costa, N. C., et al. (2019). Fitoterápicos na atenção primária à saúde: desafios e perspectivas na atuação médica no SUS. Revista Fitos, 13(2), 117-121.

Costa, K. M. V., Sousa, K. R. S. S., Formiga, P. D. A., Silva, W. D., & Bezerra, E. B. N. (2017). Ansiedade em universitários na área da saúde. *II Congresso Brasileiro de Ciências da Saúde* (pp. 14-16).

Cunha, R. S., et al. (2020). Herbal medicines as anxiolytics before third molar surgical extraction: A randomized controlled clinical trial. *Clinical Oral Investigations*, 25(3), 1579-1586.

Dantas, L. P., et al. (2017). Effects of passiflora incarnata and midazolam for control of anxiety in patients undergoing dental extraction. Medicina Oral, Patologia Oral y Cirugía Bucal, 22(1), 95-101.

Davidson, R. J., & Begley, S. (2013). O Estilo Emocional do Cérebro. Sextante.

Delgado, M. B. (2020). Produção e consumo de fitofármacos e apifármacos durante a pandemia de COVID-19 em Cuba, março a junho de 2020. Revista Peruana de Medicina Integrativa.

Dias, É., & Pinto, F. C. F. (2019). Educação e Sociedade. Editorial Ensaio: avaliação política pública educacional, 27, 104.

Di Renzo, L., Gualtieri, P., Cinelli, G., Bigioni, G., Soldati, L., Attinà, A., & De Lorenzo, A. (2020). Psychological aspects and eating habits during COVID-19 home confinement: results of EHLC-COVID-19 Italian online survey. *Nutrients*, 12(7), 2152.

Do Socorro Sousa, M., de Queiroz Neto, J. N., de Figueredo, C. A., da Costa, D. A., & Dantas, M. B. P. (2023). Medicamentos homeopáticos mais comercializados na pandemia de COVID-19 no município de João Pessoa/Paraíba. *Revista de Homeopatia*, 84(1), 77-83.

Dolić, M., Antičević, V., Dolić, K., & Pogorelić, Z. (2022). Difference in pandemic-related experiences and factors associated with sickness absence among nurses working in COVID-19 and non-COVID-19 departments. *International journal of environmental research and public health*, 19(3), 1093.

Dutt, V., Dhar, V. J., & Sharma, A. (2010). Antianxiety activity of Gelsemium sempervirens. *Pharmaceutical Biology*, 48(10), 1091-1096.

ETG. (2019). Therapeutic Guidelines Electronic Therapeutic Guidelines Complete.

Fernandes, E. L., Amâncio, N. D. F. G., Caixeta, C. A. S., & Saturnino, A. S. G. (2023). Principais tratamentos alternativos para a Ansiedade e Depressão: uma revisão de literatura. *Brazilian Journal of Health Review*, 6(1), 2062-2074.

Figueredo, C. A., Gurgel, I. G. D., & Gurgel Junior, G. D. (2014). A Política Nacional de Plantas Medicinais e Fitoterápicos: uma análise do contexto de formulação. *Physis: Revista de Saúde Coletiva*, 24, 635-657.

Franzói, M., c, M. N. (2022). Musicoterapia voltada a pacientes com Covid-19: uma revisão de escopo. Research, Society and Development, 11(13), e20111334872.

Fróio, L. R. (2006). A expansão da Medicina Tradicional Chinesa: uma análise da vertente cultural das Relações Internacionais [Dissertação de mestrado, Universidade de Brasília].

Galhardi, W. M. P., Barros, N. F., & Leite-Mor, A. C. M. B. (2013). O conhecimento de gestores municipais de saúde sobre a Política Nacional de Prática Integrativa e Complementar e sua influência para a oferta de homeopatia no Sistema Único de Saúde local. Ciência & Saúde Coletiva, 18(1), 213-220.

Gárcia, E. C., & Solís, I. M. (2016). Manual de fitoterapia (2a ed.). Editorial Elsevier.

Golden, I. (2012). The effectiveness and safety of long-term homeoprophylaxis. Part 2: the latest research. Revista Médica Homeopática, 5(1), 34-36.

Goyatá, S. L., Avelino, C. V., Santos, S. V., Junior, D. S., Gurgel, M. L., & Terra, F. S. (2015). Efeitos da acupuntura no tratamento da ansiedade: Revisão Integrativa. *REBEn – Revista Brasileira de Enfermagem*.

Guimarães, M. B. L., et al. (2015). Práticas integrativas e sofrimento difuso: perspectivas descoloniais. Congreso De La Asociación Latinoamericana De Sociología. San José: Alas.

Hahnemann, S. (2013). *Organon da Arte de Curar: Exposição da doutrina homeopatia ou Organon da Arte de Curar* (6a ed.). Grupo Benoit Mure. Hartmann, P. B. (2020). Coronofobia": o impacto da pandemia de Covid-19 na saúde mental. *Portal PebMed*.

Heimall, J., & Bielory, L. (2004). Defining complementary and alternative medicine in allergies and asthma. Clinical Reviews in Allergy & Immunology, 27(2), 93-103.

Hung, C.-L., Lin, Y.-L., Chou, C.-M., & Wang, C.-J. (2023). Eficácia da aromaterapia no alívio do estresse relacionado ao trabalho da equipe de enfermagem de diversos departamentos hospitalares durante o COVID-19. Saúde, 11, 157.

Jaggar, D. (1992). History and basic introduction to veterinary acupuncture. Problems in Veterinary Medicine, 4.

Jing, X. U., Pan, L. J., & Jia, C. S. (2020). Exploration on the feasibility of moxibustion in prevention and treatment of COVID-19 from the perspective of modern medical mechanism. *World journal of acupuncture-moxibustion*. 30(2), 81-84.

Junior, M. P. A. A. (2020). Musicoterapia na gerontologia: possibilidades em tempos de pandemia da COVID-19. Brazilian Journal of Music Therapy, 27.

Külkamp, I. C., Burin, D. G., Souza, H. M. M., Silva, P., & Piovezan, A. P. (2007). Aceitação de práticas não convencionais em saúde por estudantes de medicina da Universidade do Sul de Santa Catarina. *Revista Brasileira de Educação Médica*, 31(3), 229-235.

Lima, O. R. D. (2022). Acupuntura como ferramenta de cuidado emocional e bem-estar: uma revisão integrativa. DIVERSITÀ: Revista Multidisciplinar do Centro Universitário Cidade Verde, 8(1).

Liu, D., Baumeister, R. F., & Zhou, Y. (2020). Mental health outcomes of coronavirus infection survivors: a rapid meta-analysis. *Journal of Psychiatric Research*, 1-13.

Luz, M. T. (2003). Novos saberes e práticas em saúde coletiva – estudo sobre racionalidade médica e atividades corporais. Hucitec.

Luz, M. T. (2005). Cultura contemporânea e medicinas alternativas: novos paradigmas em saúde no fim do século XX. *Physis: Revista de Saúde Coletiva, 15*, 145-176.

Maia, J. G., Marques, L. F., Nico, R. P., & Nunes, V. S. (2019). Utilização da terapia homeopática no tratamento de pacientes com transtorno de ansiedade generalizada. Esfera Acadêmica Saúde, 4(1).

Morais, S. R. et al. (2021). Aplicação da homeopatia na Odontologia: Uma revisão de literatura. *Research, Society, and Development, 10*(8). Mustafa, M. Z., Shamsuddin, S. H., Sulaiman, S. A., & Abdullah, J. M. (2020). Anti-inflammatory properties of stingless bee honey may reduce the severity of pulmonary manifestations in COVID-19 infections. *Malaysian Journal of Medical Sciences, 27*(2), 165–169.

Nascimento, A. (2020). Aromaterapia: o poder das plantas e dos óleos essenciais. Fiocruz-PE.

Nascimento, C. C., Costa, C. B., & Damasceno, C. A. (2022). A homeopatia no sistema público de saúde brasileiro nos últimos 15 anos. *Research, Society and Development, 11*(7).

Nicolini, H. (2020). Depression and anxiety during COVID-19 pandemic. Cirugia y Cirujanos, 88(5), 542-547.

Oliveira, F. P., Lima, M. R. S., & Farias, F. L. R. (2020). Terapias integrativas e complementares em situações emocionais na pandemia do COVID-19. Revista Interdisciplinar, 13.

Organização Pan-Americana de Saúde (OPAS). (2022, outubro). ONU destaca a necessidade urgente de aumentar investimentos em serviços de saúde mental durante a pandemia de COVID-19.

Paulino, B. L. P., & Yoem, R. H. C. (2022). Práticas integrativas no tratamento da ansiedade. PubSaúde, 10.

Pereira, M. D. et al. (2020). A pandemia de COVID-19, o isolamento social, consequências na saúde mental e estratégias de enfrentamento: uma revisão integrativa. *Research, Society, and Development, 9*(7), e652974548-e652974548.

Pecoits, R. V. et al. (2021). O impacto do isolamento social na saúde mental dos idosos durante a pandemia da Covid-19. Revista da AMRIGS, 65(1), 101-108.

Pereira A. S. et al. (2018). Metodologia da pesquisa científica. UFSM.

Ramírez-Ortiz, J., Castro-Quintero, D., Lerma-Córdoba, C., Yela-Ceballos, F., & Escobar-Córdoba, F. (2020). Consecuencias de la pandemia Covid 19 en la salud mental asociadas al aislamiento social.

Ruela, L. D. O., Moura, C. D. C., Fernandes, B. B., Peppe, M. V., & Stefanello, J. (2021). Uso das práticas integrativas e complementares em pacientes com COVID-19: Revisão de escopo. *Research, Society and Development, 10*(5).

Salvador, D. L. V. F., & Fernandes, C. A. M. (2023). Laseracupuntura para o tratamento da ansiedade e depressão na síndrome pós-covid-19: resultados promissores de um estudo quase-experimental. *Arquivos de Ciências da Saúde da UNIPAR*, 27(8), 4457-4478.

Sameer, A. H., & Payal, A. C. (2019). A review on aromatherapy. World Journal of Pharmaceutical Research, 8(7), 635-651.

Sarris, J. (2018). Herbal medicines in the treatment of psychiatric disorders: 10-year updated review. Phytotherapy Research, 32(7), 1147-1162.

da Silva, M. G. P., & da Silva, M. M. P. (2018). Avaliação do uso de fitoterápicos em distúrbios psiquiátricos. Revista de Atenção à Saúde, 16(56), 77-82.

Taylor, S.(2019). The psychology of pandemics: Preparing for the next global outbreak of infectious disease. Newcastle upon Tyne, UK: Cambridge Scholars Publishing. *Asian Communication Research*, 17(2), 98-103.

Teixeira, M. Z. (2011). Evidências científicas da episteme homeopática. Revista de Homeopatia, 74(1/2), 33-56.

Thaut, M. H. (2015). Music as therapy in early history. Progress in brain research, 217, 143-158.

Tesser, C. D., & Barros, N. F. D. (2008). Medicalização social e medicina alternativa e complementar: pluralização terapêutica do Sistema Único de Saúde. Revista de Saúde Pública, 42, 914-920.

Tillu, G., Chaturvedi, S., Chopra, A., & Patwardhan, B. (2020). Public health approach of ayurveda and yoga for COVID-19 prophylaxis. *The Journal of Alternative and Complementary Medicine*, 26(5), 360-364.

Tang, Y. Y., Hölzel, B. K., & Posner, M. I. (2015). The neuroscience of mindfulness meditation. Nature reviews neuroscience, 16(4), 213-225.

Vieira, M. S. R. (2017). Acupuntura e medicina integrativa: sabedoria milenar, ciência e bem-estar. MG Editores.

Wakui, N., Togawa, C., Ichikawa, K., Matsuoka, R., Watanabe, M., Okami, A., ... & Machida, Y. (2023). Relieving psychological stress and improving sleep quality by bergamot essential oil use before bedtime and upon awakening: A randomized crossover trial. *Complementary therapies in medicine*, 77, 102976.

Wen, T.S. Acupuntura clássica chinesa. Editora Cultrix, 2020.

World Health Organization. Acupuncture; Review and Analysis of Reports on Controlled Clinical Trial. Mar/2020. 26,.6.

Wullstein, I. A. C. (2019). A meditação/mindfulness do oriente para o ocidente.

Xiong, Y., Zhu, G. H., Wang, H. N., Hu, Q., Chen, L. L., Guan, X. Q., ... & Ge, G. B. (2021). Discovery of naturally occurring inhibitors against SARS-CoV-2 3CLpro from Ginkgo biloba leaves via large-scale screening. *Fitoterapia*, 152, 104909.

Xu, J., & Zhang, Y. (2020). Traditional Chinese medicine treatment of COVID-19. Complementary therapies in clinical practice, 39, 101165.