


Acupressure: An Effective and Feasible Alternative Treatment for Anxiety During the COVID-19 Pandemic

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Abstract

Anxiety is highly reported during the COVID-19 pandemic. The use of acupressure for anxiety is a common practice in integrative medicine, and previous literature has shown that acupressure can be an effective and feasible alternative treatment for decreasing anxiety. Given the social distancing requirements during the COVID-19 pandemic, it appears reasonable to assume that acupressure may be especially suited to treat anxiety under these circumstances. However, there has been relatively little reported use of acupressure for anxiety during the pandemic. This viewpoint aims to highlight the possible role of acupressure as a self-administered therapeutic approach for anxiety amidst the COVID-19 pandemic and to outline key areas for future research.

Keywords

anxiety, acupressure, COVID-19, mental health disorder, Tuina

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As 1 of the greatest pandemics in modern history, Coronavirus disease 2019 (COVID-19), has spread to more than 220 countries, areas, and territories, with 228 807 631 confirmed cases and 4 697 099 confirmed deaths¹ as of September 21, 2021. During this pandemic, individuals may experience multiple stressors including but not limited to fear of infection, uncertainty, moral distress, dread, grief, despair, as well as the social-economic consequences of inadequate testing supplies, disrupted regular health care, unemployment, and financial losses. Because of social distancing requirements, these stressors are often experienced alone, leading to a sense of isolation, highlighting the urgent need for strategic approaches for coping with the resulting anxiety.

Anxiety is a feeling characterized by tension, worriedness, and physical changes such as increased sweating, trembling, dizziness, elevated blood pressure, or a rapid heartbeat. Anxiety can suppress the immune system leading to increased vulnerability to viral infections. People with excessive anxiety are more inclined to engage in public disruptive behaviors, such as compulsive handwashing, panic buying, and unnecessary surging into medical facilities when they misinterpret their minor ailments as signs of serious infection. A recent review indicated that the prevalence of anxiety in the

general population during the COVID-19 pandemic reached 15.15%.² Front line medical health care providers have been reported to have high anxiety with prevalence rates of 11.4% among physicians and 27.9% among nurses.³ Given the fact that anxious reactions might trigger social behavioral responses to viral outbreaks—both mitigating as well as facilitating the spread of infection, the mental health of people during the COVID-19 outbreak has received widespread attention. It is critical that health officials and health care providers understand that heightened levels of anxiety call for optimal self-care and accessible mental health services.

Given that little empirical attention has been devoted to this issue, it is not surprising that there has been no optimal guideline developed specific to the treatment of anxiety during COVID-19. Treatments need to be based on our knowledge of how to manage anxiety in medically ill, as well

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Table 1. Overview of Previous Literature Investigating the Impact of Acupressure on Anxiety.

Author	Year	Intervention	Indication	Population	Points	Evidence level ^{a*}	Effect
Mora ¹⁰	2007	Auricular acupressure	Anxiety	Elderly with renal calculi	Relaxation point (superior lateral wall of the triangular fossa)	Level 2/RCT	Positive
Moradi ⁶	2014	Acupressure	Anxiety	Maternal-fetal attachment in primiparous Women	Jian Jing (GB21) and Sanyinjiao (SP6)	Level 2/RCT	Positive
Genç ⁸	2015	Acupressure	Chemotherapy-induced nausea, vomiting, and anxiety	Breast cancer	Neiguan (P6)	Level 2/Quasi-experimental RCT	Positive
Kuo ⁵	2016	Auricular acupressure	Anxiety and fatigue	Post-caesarean section women	Auricular Shenmen acupoint (inferior lateral wall of the triangular fossa)	Level 2/RCT	Positive
Kafaei-Atrian ⁴	2016	Acupressure	Anxiety	Primary dysmenorrhea	Taichong (LV3)	Level 2/RCT	Positive
Sharifi Rizi ⁷	2017	Acupressure	Anxiety and pain	Cancer undergoing bone marrow biopsy	Hegu (LI4) and Shenmen (HT7)	Level 2/RCT	Positive
Abadi ⁹	2018	Acupressure	Preoperative cesarean section anxiety	Pregnant women	Yintang (EX-HN 3) and Shenmen (HT7)	Level 2/RCT	Positive
Avisa ¹¹	2018	Acupressure	Dental anxiety	Children	Yintang (EX-HN 3) and auricular Shenmen acupoint (inferior lateral wall of the triangular fossa)	Level 2/RCT	Positive
Rahmani Vasokolaei ¹²	2019	Acupressure	Anxiety	Female patients with coronary artery diseases	Neiguan (P6)	Level 2/RCT	Positive
Yaghobi ¹³	2019	Acupressure	Surgical anxiety	Children undergoing tonsillectomy	Hegu (LI4), Neiting (ST44) and Zusanli (ST36)	Level 2/RCT	Positive
Au ¹⁵	2015	Acupressure	Anxiety from the anticipation of surgery or treatment	Adult	Yintang (EX-HN3) and Shenmen (HT7)	Level I/Systematic review and meta-analysis	Positive
Dehghanmehr ¹⁶	2017	Acupressure	Anxiety	Patients undergoing hemodialysis	Neiguan (P6), Jian Jing (GB21), and Taichong (LV3)	Level I/Review	Positive
Kwon ¹⁴	2018	Acupuncture or acupressure	Preoperative anxiety	No limitation	Yintang (EX-HN3)	Level I/ Preliminary review	Positive

Note: RCT = Randomized Controlled Trials.

^aLevels of evidence based on the Quality Rating Scheme for Studies and Other Evidence modified from the Oxford Centre for Evidence-Based Medicine (OCEBM) for rating of individual studies; available online at <https://www.cebm.net/2016/05/ocbm-levels-of-evidence/>.

as physically healthy, individuals while taking into consideration the effects of social distancing, travel restriction, quarantine, case isolation, and uncertainty of the magnitude, duration, and speed of the pandemic. The optimal anti-anxiety interventions should be implemented mainly as a home-based practice to augment the patient's own resiliency in coping with the COVID-19 pandemic.

At present, there are multiple pharmacologic agents that may be used for treating acute anxiety in the out-patient setting as well as in hospitalized patients with COVID-19 infection including alprazolam, lorazepam, gabapentin, hydroxyzine, olanzapine, quetiapine, and haloperidol. Due to limitations such as overuse, side-effects, adverse events, tolerance, and substance addiction, the discovery of non-

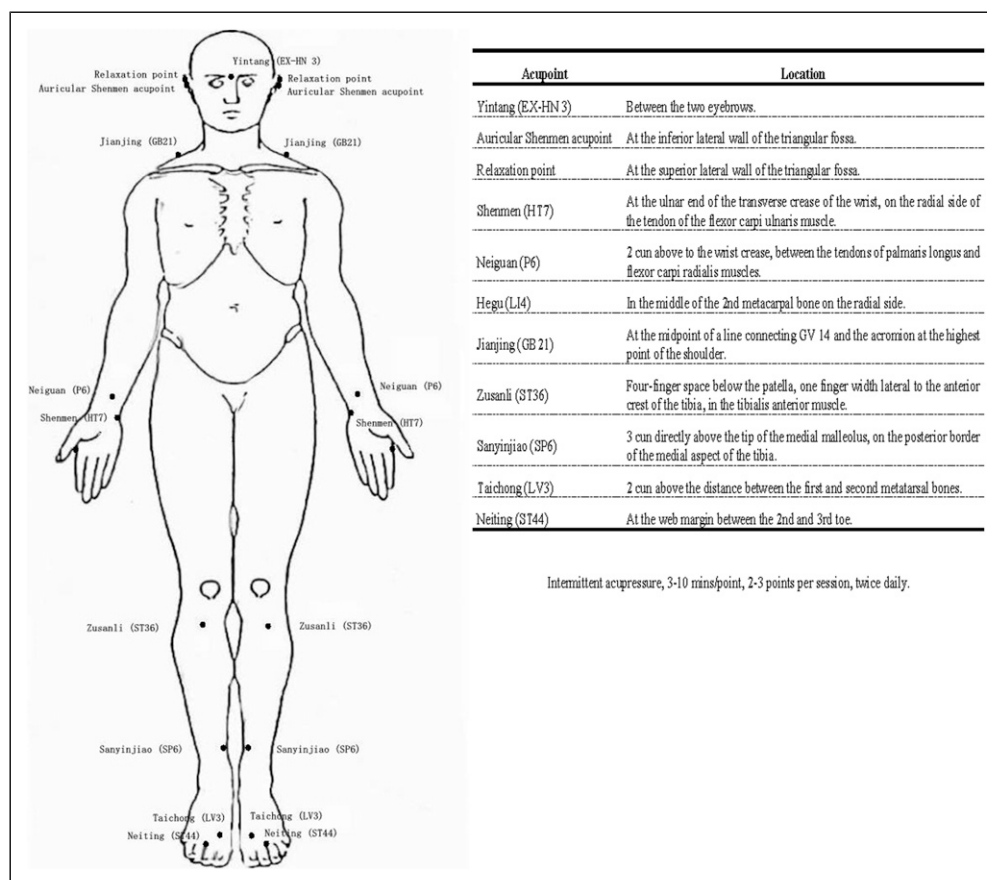


Figure 1. Distribution of common points for acupressure.

pharmacological methods that decrease anxiety effectively is clinically significant. The use of integrative medicine in this setting is now emphasized. Expert recommendations include anti-anxiety lifestyle strategies such as breathing exercises, relaxation techniques, self-compassion, remaining physically active, finding sources of joy and inspiration, and connecting with others. Self-interventions such as self-administered acupressure, Yoga, Qigong et al are also often recommended by health care providers for use at home. Acupressure is a form of Tuina, also known as “Chinese massage”—which is a branch of Traditional Chinese Medicine. It is a technique of pressing or/and rubbing acupoints with a finger or noninvasive tool. It has been proven to be effective in many medical and psychological disorders. In recent years, acupressure has been receiving more attention for anxiety management, and many randomized controlled trials⁴⁻¹³ and reviews¹⁴⁻¹⁶ have shown promising evidence for anxiety relief (Table 1). According to the Oxford grading of evidence, all reported studies strongly support the favorable effect. Based on the theory of Traditional Chinese Medicine, meridians are a network of a person’s energy, also known as Qi, connected to different areas, specific organs, or body systems, while acupoints on the meridians reflect the physiological and pathological conditions of their corresponding body part. Manipulations performed on specific acupoints can

stimulate the meridians Qi, resulting in the regulating of the channels and balancing of energy, thus restoring the body to normal health. Previous publications indicate that acupressure can effectively regulate the autonomic nervous system, increase parasympathetic activity, and reduce plasma cortisol levels without significantly decreasing normal heart rate and blood pressure among healthy populations.^{5,7,12}

The COVID-19 pandemic has had a detrimental impact on global healthcare systems with a remarkable ripple effect on every aspect of life as we know it, resulting in a series of subsequent social-economic consequences including social distancing, travel restriction, self-isolation, shortage of medical resources, lack of personal protective equipment, economic crisis, and recession. Convenient, secure, and cost-effective medical care services for millions of people are needed. Acupressure, if effective, is a safe, economic, and easily accessible technique that could provide anxious people with a tool to help control and manage their emotional and mental health concerns during this epidemic as well as in the future. Due to its simplicity and accessibility, acupressure can be self-administered without physical contact with practitioners or healthcare providers. Successful self-treatment administered by the participants indicates that this approach is useful in reducing anxiety without seeking help from others.

Therefore, we hypothesize that acupressure can be of benefit in decreasing the anxiety among people in the shadow of COVID-19 in addition to other related symptoms and signs such as stress, pain, fatigue, insomnia, vomiting, and nausea. Acupoints of Yin Tang (EX-HN3), Shenmen (HT7), Neiguan (P6), Hegu (LI4), Taichong (LV3), Jianjing (GB21), Zu San Li (ST36), Sanyinjiao (SP6), Neiting (ST44), Auricular Shenmen acupoint (inferior lateral wall of the triangular fossa), and Relaxation point (superior lateral wall of the triangular fossa) are the most frequently used points to treat anxiety. Intermittent pressure can be used on the selected acupoint for 3–10 minutes per point, 2–3 points per session, twice daily. “Intermittent acupressure” here means pressure moderate pressure resulting in mild distention of De Qi on a point every .5 seconds. “Deqi” refers to a traditional Chinese medicine term indicating the achievement of satisfactory therapeutic effects of acupoint stimulation of suan (aching or soreness), ma (numbness or tingling), zhang (fullness, distention, or pressure), and zhong (heaviness) felt by the patients. (Figure 1) Acupressure could open an attainable avenue of medical care for patients to directly reduce their anxiety in a safe, comfortable, and cost-effective manner. Developing this intervention may aid healthcare professionals, researchers, and policymakers to gain more feasible information on how to deal with anxiety related to the COVID-19 crisis.

When interpreting our recommendation, several limitations must be considered. Future research into acupressure intervention should be focused on the following 3 main areas. First and foremost, while there are a few studies examining acupressure for anxiety thus far, we are not aware of any trials specifically evaluating acupressure on patients with anxiety under the pandemic conditions of COVID-19. Second, the most frequently used acupoints recorded in literature are predominantly distributed on different superficial parts of the head, trunk, hand, and foot of the human body, whereas their detailed effects and mutual interactions are not known yet. Finally, except for sparse reports, the actual underlying mechanisms of acupressure therapy are still not fully known, and there is a clear need for more laboratory and clinical research to confirm the magnitude of the effect of acupressure on anxiety during COVID-19 pandemic. In conclusion, preliminary data regarding the use of acupressure for anxiety supports our hypothesis that acupressure can effectively reduce anxiety during the COVID-19 pandemic. We therefore recommend that health care providers consider applying this noninvasive method to address anxiety. While further studies regarding this practice are needed, the existing evidence suggests that acupressure may be safe and effective in the interim.

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Author Contributions

BB contributed to the conception and design of the work. JY collected the data and prepared the first draft of the manuscript. BB and DW revised the manuscript critically for important intellectual content. AD, MM and TC revised the last version of the manuscript.

Declaration of Conflicting Interests

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