

# Integrative Medicine—Acupuncture on Yourself?

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**Abstract:** The aim of this editorial is to demonstrate publications on self-acupuncture from both the East (China) and the West and to bring new variants such as self-applied laser medicine into the focus of interest. Self-acupuncture with needles may of course only be carried out according to the applicable laws of the respective country and these are naturally very different. However, important evidence from the studies published so far has not yet been clearly proven. The answer to a question resulting from the editorial, how tradition and innovation in the field of self-acupuncture can be efficiently combined, will have to be proven by future studies.

**Keywords:** self-administered acupuncture; self-needling; acupuncture; laser acupuncture; Traditional Chinese Medicine



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## 1. Introduction

*“In China, only doctors or medical students are qualified to perform self-acupuncture with needles. For patients without basic medical knowledge, it is almost impossible to realize self-acupuncture and this is therefore only practiced by experienced acupuncturists”* reports Professor Fengxia Liang from the Hubei University of Chinese Medicine in Wuhan in 2021 to the author of this editorial [1]. Self-acupuncture means choosing safe and practicable acupuncture points on the own body and using professional acupuncture methods [2]. Traditional Chinese acupuncture and moxibustion are rich in connotations that are very different from Western acupuncture and moxibustion. The aim is to alleviate the suffering of the patient [3]. In traditional Chinese acupuncture, the healing effect of the needles can only be optimal if the doctor's method, the choice of needles, the patient's feeling and the difference in physical fitness are perfectly coordinated [4].

A well-learned self-acupuncture practice by doctors can often reduce pain [4]. The self-practitioner has to memorize the acupuncture point positions and try out different needle insertion directions, acupuncture depths and stimulation intensities in order to maintain and optimize the corresponding Qi sensations [5]. As an acupuncture patient, one can experience the inner Qi sensation [6,7] and sometimes it is possible to treat oneself well [8]. By practicing self-acupuncture, doctors can not only improve their practice-related skills, but also often succeed in selecting better acupuncture methods for patients. Some scientists have observed and examined the brain waves of acupuncturists and patients during the treatment process [9]. The results show that the electrical brain activities of the test subjects have different patterns due to different acupuncture techniques (sedation, tonisation) and that delta-like activities can occasionally be observed in the acupuncturist's brain waves during acupuncture. These activities are in part interpreted as a manifestation of concentration of consciousness. It is also interesting that the brain waves of the patient and the acupuncturist are often in the same phase. It was found that synchronization mechanisms between acupuncturists and patients can occur. This finding is of course also of great interest for self-acupuncture [9].

In the West, self-acupuncture is sometimes used by patients—if at all—as a replacement or maintenance therapy in the late stages of chronic diseases. Compared to acu-

pressure, manual acupuncture is an invasive treatment caused by the needle stick. The self-acupuncture of a patient must be carried out under the guidance of professional acupuncturists, otherwise it is extremely susceptible to undesirable side events due to an improper method.

This editorial summarizes scientific findings on the subject of self-acupuncture in a brief overview. As a result, new scientific approaches and additional therapy options could emerge for patients.

## 2. Materials and Methods

### 2.1. Search Strategy

The databases of PubMed, Google Scholar and China National Knowledge Infrastructure (CNKI) were searched until November 2021. The keywords used in the search were “self-administered acupuncture”, “self-administered acupressure” and “self-administered laser acupuncture”. The strategy and the keywords were adapted according to the respective database. In addition, additional research results from Chinese sources on the topic were summarized in some extracts.

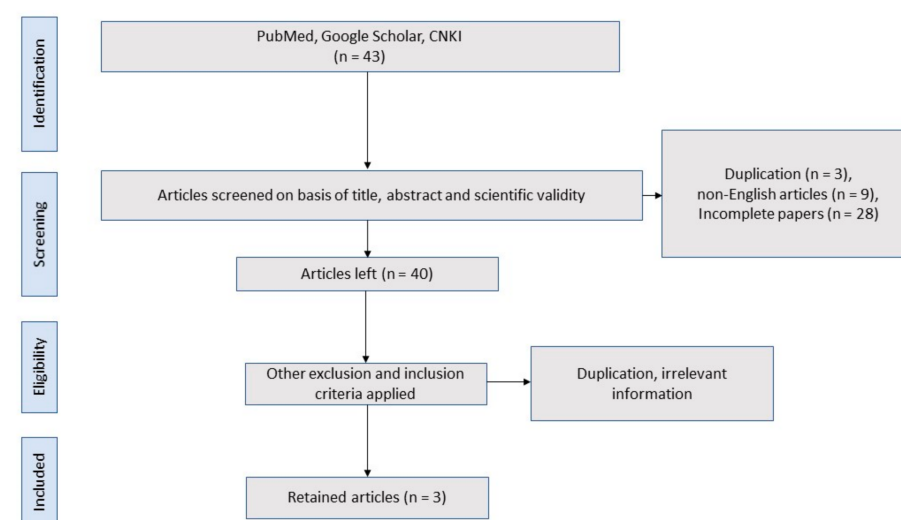
### 2.2. Database Search

The search query in the PubMed database resulted in three articles, which were analyzed in more detail by the author (see Table 1).

**Table 1.** Results from various databases.

Database/Keywords	PubMed	Google Scholar	CNKI
self-administered acupuncture	3	31	9
self-administered acupressure	35	490	21
self-administered laser acupuncture	1	0	0

The focus of the analysis was on the interpretation of needle-specific self-acupuncture. Only quality-assured research contributions were used for further review/description (Figure 1).



**Figure 1.** Selection of articles for this brief overview.

### 3. Results

The goal of a feasibility study by Davies et al. [10] was to demonstrate the acceptance, practicability and safety of acupuncture training by people who regularly use conscious self-needling to self-administer acupuncture as a complementary therapy option for emotional stress. Ten adult patients with a diagnosis of an emotionally unstable personality disorder who regularly self-acupunctured were recruited for the study after an initial assessment by a psychiatrist. An experienced acupuncturist taught the participants how to self-acupuncture. During a 6-week intervention, the study participants recorded their emotional stress, coping behavior, thoughts and feelings in a study diary. The participants' motives for self-acupuncture and their experiences with this method were examined in personal interviews. A framework analysis was carried out based on the documentation in order to identify common topics. The mood at the start of the study and after six weeks was measured with the Beck Depression Inventory (BDI) and changes in coping behavior and acupuncture were measured using study diary entries. The test subjects applied acupuncture regularly to themselves during the six-week intervention. The qualitative analysis identified two major areas of focus related to the process and effects of self-acupuncture. There were big differences in the effects that the subjects experienced. The BDI scores showed a significant reduction from 44.4 to 34.4 over the 6-week treatment phase. Patients who could imagine deliberate self-harm can be safely trained to use self-acupuncture as a complementary way of coping. However, acceptance and effectiveness can vary greatly from patient to patient, depending on the complex motives underlying the self-injurious behavior. While the pilot study aimed to examine the general feasibility of such an intervention, the results of this limited sample suggest that the use of self-administered acupuncture can reduce the incidence of self-harming behavior and emotional stress as measured by the BDI [10].

In another study by Walter and Curtis [11], a 46-year-old woman with differentially diagnosed sphincter-Oddi-Dysfunction (SOD) type III is described. After two and a half years of treatment of the disease with a conventional-medical-pharmacological approach, the patient's symptoms worsened and additional treatment approaches were sought. The patient began traditional acupuncture treatment before being trained to self-administer electroacupuncture by a practitioner of Western medical acupuncture. The frequency and intensity of severe nocturnal pain attacks were reduced and, in addition, the self-administered manual acupuncture during the pain attacks led to rapid, permanent and complete symptomatic pain relief. This was the first scientifically published case report that used electroacupuncture in the clinical treatment of this condition. It shows electroacupuncture administered by the patient as a low-risk, well-tolerated procedure that can provide effective pain relief and reduce the frequency and severity of pain attacks. The authors of this work [11] conclude that self-administered acupuncture could be considered as a potential complementary medical approach for patients with SOD type III before resorting to endoscopic interventions, which also carry significant risks of pancreatitis.

In this compilation, the possibility of self-acupuncture should also be viewed critically. Self-acupuncture can also lead to considerable side effects and discomfort. An article by Sung et al. published this year [12] shows this impressively. Facial abscesses due to *Candida albicans* infection are a relatively rare disease even in immunocompromised patients, and very few cases have been reported to date. In the case study, the authors report on a patient with multiple *Candida* abscesses on the face caused by self-administered acupuncture for undiagnosed diabetes mellitus. The 57-year-old woman who had self-acupuncture treatment 2 weeks earlier presented with a 1-week history of progressive swelling of the left eyelid, erythema and pain. Despite the antibiotic treatment, the lesion progressed. Surgical incision and drainage were performed and *Candida albicans* was isolated from the resulting pus culture. The patient was diagnosed with type 2 diabetes mellitus due to a random serum glucose level of 350 mg/dL and 9.2% HbA1C. The abscess disappeared after seven incision and drainage cycles and 4 weeks of intravenous fluconazole treatment with appropriate control of diabetes mellitus [12].

Another study aimed to assess the effectiveness of self-acupuncture in the treatment of cancer-related fatigue (CRF) [13]. Treatments by therapists or self-acupuncture were used for the evaluation. Breast cancer patients who took part in a randomized study on acupuncture were examined. The conventional procedure was expanded to include four more weekly sessions by experienced acupuncturists or four self-administered weekly acupuncture sessions (self-needling). The third group no longer received acupuncture. Overall fatigue, mood, quality of life and safety were assessed. A total of 197 patients were re-randomized, 65 had therapeutic acupuncture sessions, 67 had self-acupuncture/self-needling and 65 had no further acupuncture. The primary result values were equivalent between the acupuncture performed by the therapist and the self-acupuncture. A non-significant trend of improving fatigue was observed in the combined acupuncture arms at the end of 4 weeks. There was no effect on mood or quality of life of subsequent acupuncture sessions after 18 weeks beyond the improvement seen in the first study. The study's authors conclude that self-acupuncture could be an acceptable, feasible, and safe therapy for patients with CRF [13].

#### 4. Discussion

The results of relevant studies showed that the improvement observed by the self-acupuncture group, for example in fatigue scores, was the same as that achieved by the trained acupuncturists in the acupuncture group [13]. In addition, patients with vasomotor symptoms showed a significant improvement after 6 years of self-acupuncture treatment [14]. It is worth noting that safe and effective self-acupuncture requires professional and thorough training of the patient or must be done under the guidance of professional acupuncturists. Doctors and the patients themselves must be able to fully assess the state of health of the person being treated in order to determine whether the individual patient fulfills the requirements of self-acupuncture. As mentioned, there are reports that undiagnosed diabetics can become infected by incorrect self-acupuncture, which in individual cases can lead to multiple *Candida albicans* abscesses on the face [12].

In summary, it can be stated that it does not matter whether it is self-acupuncture or acupuncture by doctors, the most important premise is that the safety and accuracy of the acupuncture treatment must be guaranteed. Due to the considerable differences in acupuncture between China and the West, there are also differences in acupuncture manipulation and the healing effects. When making comparisons, the differences between Chinese and Western controlled randomized clinical trials in terms of initial situation, research purpose, research design, investigator, acupuncture treatment plan, research methodological quality, research results, research conclusions and research deficiencies should also be fully taken into account. As a minimally invasive treatment, acupuncture requires the user to have good medical knowledge and skillful techniques. If the patient does not have the prerequisites for self-acupuncture, she or he can learn or use other forms of self-treatment—for example acupressure techniques.

A circular needle is used, for example, to massage the surface of the body and activate muscles. Massage can be performed with it and the acupuncture points can be stimulated without penetrating the skin. This type of needle is also one of the historic nine needles and, as already mentioned, can be used without violating physical integrity. The nine needle types were described in the *Ling Shu*, the second part of the *Yellow Emperor of internal medicine*, the acupuncture classic (*Zhen Jing*). Currently, these non-invasive acupuncture therapy methods are mainly used in the recovery phase of cervical spondylosis, facial paralysis, stroke, and head and facial symptoms [15–18]. In addition, some scientists have combined traditional circular needles with magnetic applications as part of interdisciplinary projects, which are then to be used in the rehabilitation of older people and in other areas [19,20].

## 5. Self-Acupuncture—Perspectives

Acupuncture and moxibustion are among quintessential of traditional Chinese medicine. They are partially recognized by international medical circles due to their evidence-based effectiveness, timeliness and wide range of treatments. As the pace of modern pace of life becomes ever faster, numerous methods of Traditional Chinese Medicine are also changing to adapt to the pace of modern society. Traditional acupuncture and moxibustion require a lot of time and energy. Therefore, self-acupuncture and home physical therapy can become one of the reform trends of traditional acupuncture. Since the methods of acupuncture are sometimes strict and complicated and certainly also contain risk potential, hygiene standards must of course be met. Therefore, patients must undergo standardized training before self-acupuncture or be guided by professional acupuncturists. Not only do you need to master acupuncture techniques, understand the contraindications of acupuncture and moxibustion, but also have a certain first aid knowledge in dealing with emergencies. Of course, the innovation of traditional acupuncture and moxibustion in terms of new materials and technologies has made acupuncture treatment more comfortable and safer overall.

One possibility in this context is laser acupuncture and the laser medicine associated with it in general. In fact, there are also initial studies where this modern technique is used in self-treatment. For example, breast cancer-related lymphedema is a complication with long-term effects on the quality of life after breast cancer treatment. Its management remains a major challenge for the mostly female patients and healthcare professionals. Combined physical therapy with various combinations of surgery, oral drugs, weight reduction, mesenchymal stem cell therapy, Kinesio-Tex taping, but also self-laser acupuncture could be effective in reducing lymphedema [21]. However, the quality of many original studies is currently not yet optimal, so that randomized control studies will have a high priority in the future.

The question of how to efficiently combine tradition and innovation in the field of self-acupuncture will also be one of the challenges for the development of acupuncture in today's modern society.

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