

Observation on the Clinical Efficacy of Danzhi Xiaoyao San Combined with Traditional Chinese Medicine Qigong in Treating Depression Caused by Liver Stagnation and Qi Stagnation

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Abstract: This study focuses on evaluating the therapeutic effectiveness of the traditional Chinese medical formula Danzhi Xiaoyao San in conjunction with Qigong practices, specifically for depression linked to liver and qi stagnation. In this approach, a group of 30 individuals suffering from this type of depression were split into two groups: a control group, where 15 patients received 10 mg of Escitalopram Oxalate per dose, and a treatment group, where 15 patients were administered Danzhi Xiaoyao Powder twice daily and engaged in traditional Chinese medicine Qigong exercises. Each treatment cycle lasted 7 days, with participants completing four such cycles in total.

Keywords: Danzhi Xiaoyao San; Traditional Chinese medicine; Depression; Qigong

1. Introduction

Scientific and technological progress has improved material living standards but also increased stress, contributing to rising depression rates. This mental illness, often causing disability and high suicide rates, particularly in early stages, also has a high recurrence rate, negatively impacting physical and mental health and family life. Managing depression has become a significant focus in healthcare and society. While Western medicine is effective in treating depression, the side effects of chemical medications limit their use, and reducing recurrence remains a challenge.^[2]

Recent studies on depression, particularly those linked to liver and qi stagnation, show that experts have developed effective treatment plans, including Danzhi Xiaoyao San, which is notably successful for this type of depression. However, due to depression's recurrent nature, there's a growing need to focus on predicting and managing its onset.

This paper combines academic research and clinical data to examine the effectiveness of traditional Chinese medicine and Qigong therapies in treating depression caused by liver and qi stagnation. Its main goal is to understand and evaluate the therapeutic effects of these treatments on such depression, providing empirical insights for its clinical management and control^[3].

2. Clinical information

2.1 Normal information

The study involved 30 outpatient participants, comprising 13 men and 17 women. Their ages varied between 18 to 52 years, with an average age spanning across this range. The duration of their condition ranged from a minimum of 2 months to a maximum of 18 months, with an average duration falling within this interval. Additionally, based on the initial 17 items of the Hamilton Depression Scale (HAMD), all participants had scores of 18 points or above.

2.2 Diagnostic criteria

All cases met the Chinese Classification and Diagnostic Criteria of Mental Disorders (CCMD-3) for depression and referred to the International Classification of Diseases-10 (ICD-10) for diagnosis of mental and behavioral disorders^[1]. The predominant characteristic of the patients was a depressive state, evidenced by the presence of at least four of the following symptoms: diminished concentration and attention; lowered self-esteem and confidence; feelings of guilt and unworthiness, even in less severe episodes; a bleak outlook on the future; thoughts or actions related to self-harm or suicide; sleep issues including insomnia, premature waking, or oversleeping; reduced appetite or notable weight loss; and a decline in sexual drive. These individuals were diagnosed with a depressive episode by a municipal or higher-level

Department of Mental Diseases, fitting the Traditional Chinese Medicine (TCM) profile for depression caused by liver and qi stagnation. The duration of these symptoms persisted for a minimum of two weeks. All participants demonstrated good compliance with the treatment and consented to subsequent follow-ups^[5].

2.3 Exclusion criteria

Participants who were unable to comply with the treatment regimen or who wished to exit the study were excluded; this also applied to those who did not adhere to the prescribed treatment protocol or developed severe concurrent health issues during the study. In cases where a participant chose to leave the study, a detailed clinical assessment was performed. The reasons for their withdrawal were meticulously recorded^[4], and further inquiries about their decision to discontinue were made either through phone calls or written correspondence.

2.4 Treatment method

2.4.1 Test group

Patients were administered Danzhi Xiaoyao San and participated in the Ba Duan Jin Qigong exercise, a part of traditional Chinese medicine. The formula included a blend of ingredients such as 10g of danpi, 10g of fried gardenia, 12g of angelica, 12g of white peony, 6g of fried chaihu, 10g of poria, 10g of fried atractylodes macrocephala, and 3g of baked licorice. Additional components like mulberry leaf, gentian herb, and chrysanthemum were added for liver fire inflammation; sour jujube kernel, forged keel bone, and amber for insomnia; agaricus for blood deficiency; dongshen and astragali for qi deficiency; and rehmannia glutinosa, plantain seeds, slippery stone, and Tongzhi for urinary issues. Whole gua pou was included for constipation. The dosages were tailored to each patient's specific needs, and self-adjustment of doses was prohibited to prevent adverse reactions. The treatment involved four complete courses. After these courses, patients showing notable improvement were encouraged to continue with Jiami Yuwan for an additional two months to ensure adherence. During treatment, patients were advised to follow a light diet, rich in nutrients and protein, and to avoid high-fat, high-sugar, and high-salt foods.

2.4.2 Control group

Participants in the control group received comprehensive information regarding their condition and followed a standard diet. Their treatment included the administration of the Western antidepressant, escitalopram oxalate, at a dosage of 10 mg per dose. This dosage and the method of administration were tailored to each individual's specific needs, following the guidance of clinical experts. Additionally, these patients received psychological counseling as part of their treatment, emphasizing empathetic, patient, and attentive interactions. This approach allowed for a thorough understanding of their concerns, facilitating appropriate emotional expression. Moreover, they underwent traditional Chinese medicine evaluations, including detailed inquiries, diagnostic assessments, and examinations.

2.5 Observation Indicators

Depression Self-Rating Scale, Anxiety Self-Rating Scale, Comprehensive Efficacy Observation Evaluation, and Quality of Patient Survival.

2.6 Statistical analyses

Statistical software SPSS version 26.0 was used to analyze the data, and the measurement information was expressed by $(\bar{x} \pm s)$, and χ^2 and t were used to test the corresponding data, respectively, and if the difference in the results of the comparison between the groups was $P < 0.05$, then it represented that the data were statistically significant.

3. Clinical results

3.1 Self-rating Depression Scale (SDS)

This straightforward and clear table effectively captures the individual emotional states of patients suffering from depression over the past week. Using this table for analysis, a more direct comparison was observed between the control and experimental groups. In the control group, the scores of 9 people decreased and 3 people increased, and the mean score change was -4.61. In the experimental group, 12 people's scores decreased and 1 person increased, and the mean score change was -10.56. In the group treated with escitalopram oxalate tablets, a decrease in scores was noted in 60% of the patients, although there were three instances where an increase in scores was recorded. Conversely, in the group receiving Danzhi Xiaoyao San alongside Ba Duan Jin Qigong, a reduction in depressive symptoms was seen in 80% of the cases, with only a single instance showing an increase in scores.

3.2 Self-Rating Anxiety Scale (SAS)

The table presents an intuitive overview of the anxiety levels experienced by individuals in the preceding week. In the control group, 10 people's scores decreased and 1 person increased, and the mean score change was -4.37. The scores of 14 people in the experimental group decreased and no one increased, and the mean score change was -9.43. With ongoing monitoring, it was observed that a majority of the patients experienced a reduction in anxiety and a corresponding decrease in their anxiety scores. Notably, patients receiving traditional Chinese medi-

cine treatment showed a significant average reduction in their anxiety scores. Conversely, there was a recorded increase in anxiety symptoms in one instance among patients treated with Western medicinal drugs.

3.3 Comprehensive efficacy observation table

This table synthesizes clinical data from various aspects, comparing the mental, behavioral, and psychological states of patients before and after treatment. Patients were categorized into three groups based on their responses: remission, cure, or deterioration. The total effective proportion in the control group reached 80%, and that in the experimental group reached 93.3%. Statistics $P < 0.05$, $\chi^2: 5.6793$. The majority experienced marked symptomatic relief, showing substantial improvement. While deterioration was observed in both treatment groups, it was less common among those receiving Chinese medicine compared to those under Western medical treatment. The cure rate was higher in the Chinese medicine group. Post-treatment, most patients reported a significant reduction in symptoms and a notable enhancement in their quality of life. Specifically, the Traditional Chinese Medicine (TCM) group saw fewer cases of deterioration, a higher number of cured patients, and substantial improvements in symptoms and overall quality of life compared to the Western medicine group.

4. Deliberations

In traditional Chinese medicine, depression is seen as a qi, blood, and body fluid disorder with long-lasting depressive and emotional disturbances, often caused by emotional distress. This leads to liver function disruption, qi stagnation, and organ impairment, presenting as a mix of deficiency and excess symptoms. This research evaluates the effectiveness of Dan jia jiao formula and Qigong exercises for depression linked to liver depression and qi stagnation. Danzhi Xiaoyao San, with ingredients like angelica and white peony, aims to regulate liver qi and clear heat. Treatments also include oral medication, acupuncture, and massage, with Qigong playing a key role by regulating breathing and movement to enhance vital functions. This approach aims to address both symptoms and underlying causes of depression, potentially shortening its duration and improving treatment effectiveness.

Study findings revealed that individuals in the experimental group exhibited greater improvements across various measures, including depression and anxiety ratings, symptom alleviation, overall quality of life, and a decrease in suicidal inclinations, as opposed to those in the control group. These outcomes underscore the substantial effectiveness of integrating Danzhi Xiaoyao San with TCM qigong practices for managing depression related to liver stagnation and qi imbalance.

5. Conclusions

The investigation revealed that combining Danzhi Xiaoyao San and qigong from traditional Chinese medicine significantly alleviates depression symptoms associated with liver and qi stagnation. This approach presents a novel and promising direction for the clinical management of such depression types. Widespread adoption of this method could potentially enhance the recovery rates among patients with depression.

References

- [1] Yan-Fang C. Chinese classification of mental disorders (CCMD-3): towards integration in international classification. [J]. *Psychopathology*, 2002, 35(2-3):171-5.
- [2] Zhiqiang X, Hongxiao X, Xi P, et al. The antidepressant-like effects of Danzhi Xiaoyao San and its active ingredients. [J]. *Phytomedicine: international journal of phytotherapy and phytopharmacology*, 2023, 119155015-155015.
- [3] XiaoLe W, SiTong F, YaTing W, et al. Canonical Chinese medicine formula Danzhi-Xiaoyao-San for treating depression: A systematic review and meta-analysis. [J]. *Journal of ethnopharmacology*, 2021, 287114960-114960.
- [4] Zheng L. A study on the antidepressant effect of Danzhi Xiaoyao Powder. [J]. *African journal of traditional, complementary, and alternative medicines: AJTCAM*, 2014, 11(1):205-8.
- [5] Li K, You L, Zhen J, et al. Integrated analyses of transcriptomics and network pharmacology reveal leukocyte characteristics and functional changes in subthreshold depression, elucidating the curative mechanism of Danzhi Xiaoyao powder [J]. *Journal of Traditional Chinese Medical Sciences*, 2024, 11(1):3-20.