Standardized Auricular Therapy for Patients with Different Constitutions and Suboptimal Health: A Retrospective Study

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ABSTRACT

Objective: According to the guideline for preventive treatment in Traditional Chinese Medicine (TCM), this study examined the efficacy of standardized auricular therapy for patients with different constitutions who had suboptimal health. To prevent the occurrence and development of diseases, it is necessary to find new positive and feasible methods.

Materials and Methods: A retrospective study of standardized auricular therapy for patients with different constitutions who had suboptimal health was conducted. The study included 176 patients with Qi Deficiency, Yang Deficiency, Yin Deficiency, Qi Stagnation, Phlegm Dampness, Blood Stasis, Damp–Heat, and Special Constitution. As the patients underwent treatment, they were examined with a weekly test for changes in symptoms for 4 weeks.

Results: Using statistical analysis, the efficacy rate of treatment for patients with Yang deficiency was 83.90%. Other constitutional efficacy rates were: Yin Deficiency, 84.62%; Qi Deficiency, 75.00%; Qi Stagnation, 92.31%; Phlegm–Dampness, 82.69%; Damp–Heat, 84.84%; Blood Stasis, 71.43%; and Special Endowment, 83.33%.

Conclusions: Standardized auricular therapy has curative effects on patients with a variety of constitutions and who have suboptimal health. This therapy can not only balance the constitutions of patients with suboptimal health but also can play an important role in the field of prevention and health-promoting medicine.

Keywords: auricular therapy, disease prevention, suboptimal health, unbalanced constitution, intradermal needle

INTRODUCTION

WITH THE CONTINUOUS IMPROVEMENT of medical knowledge and the continuous development of modern people's living standards, people are facing the increasing pressure of survival, so that the number of groups with suboptimal health is also increasing. In 2007, the Chinese Society of Traditional Chinese Medicine released the *Sub-Health TCM Clinical Guideline*.¹ It showed that suboptimal health was a special status between health and disease, which was mainly manifested in the imbalance of human function or the decline of adaptability to the environment.

Without early preventive treatment, the suboptimal health status of patients will evolve further into various diseases. From the perspective of Traditional Chinese Medicine (TCM) constitution theory, body shape, Qi, and Spirit complement each other, which is indispensable for maintaining physical and mental balance. Once there is an imbalance, there will be abnormal function, which leads to an unbalanced constitution.² It is not difficult to find that suboptimal health status is closely related to the unbalanced constitution concept of TCM. Therefore, correcting unbalanced constitutions can adjust the suboptimal health status of patients to achieve the goal of disease prevention.

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Using a prospective cohort study to analyze the relationship of unbalanced constitutions to the transformation of suboptimal health, Wu et al.³ found that an unbalanced constitution was one of the most important risk factors for suboptimal health. Therefore, it is crucial to regulate unbalanced constitutions to address suboptimal health. Zhou and Zhang,⁴ through statistical analysis of the proportion of patients with suboptimal health and poor physical fitness, noted that a positive correlation between them was higher. Guo et al.⁵ found that an important and positive influence of TCM physical identification adjusted patients' suboptimal health status when comparing a large number of patients who had physical examinations, TCM health interventions, and personalized health guidance.

Zhang⁶ used the Four Seasons health concept as a core of her research. Through a series of public group activities and follow-ups for elderly patients in a community, she found that introduction of TCM into health management was effective for improving the physical conditions of elderly patients. In addition to providing guidance, using TCM therapy to improve the suboptimal health of the general population is also of great significance. Chen et al.⁷ designed an experiment and compared an experimental group—who received a combination of *Fuzheng Qi*—to a placebo group. The researchers believed that this TCM therapy could help change the unbalanced constitutions of patients and improve their quality of life. Various interventions and conditioning methods of TCM have definite effects on suboptimal health in patients with unbalanced constitutions; these therapies are suitable for extensive development and long-term use in clinical practice.

In 2008, the State Administration of TCM of the People's Republic of China launched a Preventive Treatment project. According to the concept of TCM preventive treatment, that study conducted standardized auricular therapy as an intervention for patients with suboptimal health with different constitutions. The researchers combined their clinical experience with auricular therapy with that of the 20-plus years of experience the chief physician investigator Liu,⁸ who led the team to compile an "Operation Specification of Prevention of TCM: Auricular Points" in *Technical Practice for the Preventive Treatment in Traditional Chinese Medicine*, published by the Chinese Press of Traditional Chinese Medicine, in Beijing, in 2019.⁹

MATERIALS AND METHODS

Patients

Patients were retrospectively recruited from those who were treated at the preventive treatment center in the Foshan Hospital of Traditional Chinese Medicine, in Foshan, Guangdong, China, between February 2014 and February 2019.

All of the included patients had suboptimal health. According to the *Preventive Treatment of Chinese Medicine Practical Guideline*¹⁰ released by the China Association of Chinese Medicine, suboptimal health is a status between health and disease. Patients with suboptimal health have decreased vitality, as well as functional and adaptive declines during a certain period of time, but do not meet the clinical or suboptimal clinical diagnostic criteria for related diseases.

Included patients were required to complete the fifth edition of a questionnaire on constitution identification of TCM. The questionnaire responses were professionally graded by trained and qualified medical staff members in the in Foshan Hospital of Traditional Chinese Medicine. The questionnaire contains 9 major sections, with each section having 8 items. All of the responses to the items were added up. Each patient's constitution was judged by the highest score of a particular section. There are 8 types of constitutions: (1) Yang Deficiency; (2) Yin Deficiency; (3) Phlegm–Dampness; (4) Damp–Heat; (5) Qi Depression; (6) Qi Deficiency; (7) Blood Stasis; and (8) Special Endowment—plus moderate physical quality—covered in the questionnaire. The research included patients with 8 different constitutions in addition to moderate physical quality. Prior to implementation of the treatment, each patient was provided with a detailed description of the treatment and study procedures to ensure that the patient understood the study fully and agreed before being included in it. This study was approved by the ethics committee of the Foshan Hospital of Traditional Chinese Medicine. All patients were fully informed and signed informed consents before treatment.

Exclusion criteria were: patients with hypertension, diabetes, coronary heart disease, tumors; and other major diseases; patients who had major surgery within 1 year; patients with cognitive impairments or mental disorders, who might not have completed the test; patients with poor compliance due to allergy to therapeutic materials or other causes; and pregnant woman.

Study Design

The subjects were divided into 8 groups according to the patients' constitutions. Each group received auricular therapy via the same procedure, but different acupoints were selected according to the patients' different constitutions or symptoms (Appendix 1). Auricular therapy included auricular diagnostic and intervention techniques. Auricular positive-reaction points, which reflected the locations or conditions of the diseases, were found by auricular inspections, palpation, and electrical methods. According to their auricular diagnoses, patients received auricular intradermal needles on the most sensitive 3–5 corresponding acupoints on their right ears and were instructed to press the appropriate auricular acupoints by themselves with tolerable stimulation 3 times per day for 5 days, 1–2 times each time. Meanwhile, patients received auricular pill-pressing on their

left ears according to their different constitutions and were told to press the auricular acupoints themselves with tolerable stimulation, 3 times per day, for 7 days, 20–30 times each time. Treatment was performed once per week, with intradermal needles and pill-pressing performed alternately in both ears.

Patients were asked about symptoms and adverse events during every visit, and all adverse events were recorded. According to the standards for diagnosis and curative effects of Chinese medical symptoms, changes in patients' symptoms after 4 weeks of treatment were used as outcomes and were classified into 3 types:

- (1) *Cured*—Symptoms and signs disappeared, and there was no recurrence of symptoms after stopping treatment.
- (2) *Improved*—Symptoms and signs improved, reduced, or some symptoms and signs disappeared.
- (3) *Ineffective*—Symptoms and signs were not reduced.

Standardized Procedure

Auricular inspection. The acupuncturist looks straight at the patient's ear and pinches the auricle lightly between the thumb and index finger. The middle finger is then used to push indentations up from the back of ears, from inside to outside, and from up to down to observe the color and luster, form, secretions of the auricle and the selected points, and changes of auricular-positive reactants, such as papules, nodules, eluvium, scars, oil, and grease, etc.

Auricular palpation. The acupuncturist presses the auricle's anatomical site with a finger or probe, which has a smooth top and moderate hardness, to identify the shapes, textures, and reactants activity under the fingers, as well as feeling for tenderness.

Auricular electrical method. After cleaning the auricle with 75% ethanol or 0.9% normal saline and natural drying, the acupuncturist uses one hand to pinch the auricle between the thumb and index finger and to push an acupoint up from the back of the ear with the middle finger. The other

hand holds a probe used to detect reactive points. The same pressure is used to detect each point for 2–3 seconds and avoids having to perform repeated detections. According to the meter, the sound, and the light, the acupuncturist can judge and screen the main positive reactive points.

Auricular intradermal needle therapy. Patients are usually seated for this therapy, but old and weak patients as well as the sickest ones or those that are nervous are maintained in a supine position. For each patient, the acupuncturist selects the appropriate ear points and disinfects them with 75% ethanol or 0.5%–1% iodine. The acupuncturist then fixes the auricle in one hand, pierces the intradermal needle into the auricular points with forceps or hemostatic forceps in the other hand, fixes the needle in place with medical-grade adhesive, and then presses the needle.

Auricular pill-pressing therapy. The patients are usually seated, but old, weak, sickest, or the nervous ones are maintained in a supine position. For each patient, the acupuncturist selects the appropriate ear points and disinfects them with 75% ethanol or 0.5%–1% iodine. The acupuncturist chooses different press materials, according to the patient's situation. The acupuncturist fixes the auricle in one hand, and, with the other hand, using forceps, inserts rubberized cloth that has pellets in it—likes pills or magnetic beads—on the points.

Statistical Analysis

Based on the characteristics of the data, the numbers of cured, improved, and ineffective cases were calculated. The cured and improved cases indicated that the treatment was effective, and the data were presented as percentages.

RESULTS

A total of 176 patients with suboptimal health and with different constitution were included in this study. Eligible patients included 85 females and 91 males, between ages 18 and 75, with high-school education level or above; the

TABLE 1. EFFICACY RATES OF ALL GROUPS AFTER TREATMENT

Type of constitution	# of patients	Cured	Improved	Ineffective	Efficacy rate
Yang Deficiency	32	11 (34.38)	16 (50.00)	5 (15.63)	27(84.38) 84.38% = (11 + 16)/32
Yin Deficiency	13	5 (38.46)	6 (46.15)	2 (15.38)	11 (84.62) 84.38% = (11 + 16)/32
Qi Deficiency	20	3 (15.00)	12 (60.00)	5 (25.00)	15 (75.00) 75.00% = (3 + 12)/20
Phlegm–Dampness	52	11 (21.15)	32 (61.54)	9 (17.31)	43 (82.69) 82.69% = (11 + 32)/52
Damp–Heat	33	5 (15.15)	23 (69.70)	5 (15.15)	28 (84.85) 84.85% = (5 + 23)/33
Qi Depression	13	4 (30.77)	8 (61.54)	1 (7.69)	12(92.31) 92.31% = (4 + 8)/13
Blood Stasis	7	1 (14.29)	4 (57.14)	2 (28.57)	5 (71.43) 71.43% = (1 + 4)/7
Special Endowment	6	1 (16.67)	4 (66.67)	1 (16.67)	5 (83.33) 83.33% = (1 + 4)/6
Total	176	41 (23.30)	105 (59.66)	30 (17.05)	146 (82.95) 82.95% = (41 + 105)/176

Values are presented as number (%). All probabilities are rounded to the last two decimal points.

patients were followed-up for 4 weeks. The effective rate of the treatment was above 70% at week 4 after therapy, compared to baseline in all groups (Table 1).

DISCUSSION

Under the further development of the Preventive Treatment Project, the State Administration of Chinese Medicine launched a total of 136 standardization projects in 2005 and revised some guidelines developed by China Association of Chinese Medicine. To make the country have a more specific indepth understanding of suboptimal health, and to have more standard and credible understanding and guidance on intervention methods, the newest version of the *Preventive Treatment of Chinese Medicine Practical Guideline*, in 2018,¹⁰ added some information about suboptimal health and Chinese medicine.

The current research team has been using auricular therapy in the preventive treatment center of the Foshan Hospital of Chinese Medicine for many years. Although European ear auricular diagnosis technology is developing faster than it is in China, the disadvantage is that the treatment points, which has been found, have no definite correlation with the diagnosis and the nature of disease. Therefore, the study of auricle diagnostic technology, combining TCM and Western Medicine (WM) could be a new direction.¹¹ Based on this discovery, Liu combining TCM auricular point diagnosis and treatment with WM, used auricular therapy on patients with different constitutions. The rich, simple treatment methods and their curative effects were recognized by the majority of patients. In recent years, the current authors have been actively engaged in basic experimental research on auricular therapy to establish a good foundation. This would include clinical research on auricular gold-needle therapy for treating chronic fatigue syndrome in patients with Qi Deficiency constitutions.¹² and “The Conformance Test Report of ‘The Standardized Operation of Auriculotherapy.’”¹³ The current study reviewed the efficacy of standardized auricular therapy in patients with suboptimal health and with different constitutions in the past 5 years, which showed the significant effectiveness. From the long-term analysis, it is inferred that the long-term standardized auricular therapy as a means of health care is also important to **prevent diseases** and improve the quality of life of patients with different constitutions. With the improvement of hospital quality-management requirements, standardized auricular therapy is worth further promotion and application in clinics.

CONCLUSIONS

Among the cases collected in this study, the proportion of people with 4 types of constitutions—such as Phlegm–

Dampness, Damp–Heat, Yang Deficiency, and Qi Deficiency—was higher; this phenomenon was considered as having a close relationship to the fatigue experienced by most patients with suboptimal health. Fatigue, sleep disorders, and psychologic disorders were the most common symptoms of suboptimal health. The patients with fatigue had mostly Phlegm–Dampness and Damp–Heat constitutions; the patients with sleep disorders were mostly characterized as having Yin Deficiency and Qi Stagnation; while patients with psychologic disorders manifested more as having Qi Stagnation. The study showed that auricular therapy had more significant effects on patients with suboptimal health and Qi Depression, Damp–Heat, and Yin Deficiency constitutions. Moreover, the total effective rate of standardized auricular therapy for all kinds of people with unbalanced constitutions reached 70% or above. This result proved that auricular therapy can balance the constitutions of the human body; that it was effective for changing various suboptimal health states; and ultimately achieve the goal of disease prevention.

AUTHOR DISCLOSURE STATEMENT

No financial conflicts of interest exist.

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Appendix

APPENDIX A1

Acupoints chosen according to different constitutions

- (1) For the constitution of Qi Deficiency, the Heart (HT), Lung (LU), Kidney (KI), Spleen (SP), Stomach (ST), Liver (LV), and Sanjiao points should be chosen.
- (2) For the constitution of Yang Deficiency, the HT, KI, LV, SP, ST, Endocrine and Adrenal Glands points should be chosen.
- (3) For the constitution of Yin Deficiency, the LV, KI, LU, HT, Shenmen, Occiput, and Subcortex points should be chosen.
- (4) For the constitution of Blood Stasis, the points like heart, liver, spleen, Sanjiao, Shenmen, endocrine and subcortex should be chosen.
5. For the phlegm-dampness constitution, the points like spleen, stomach, liver, lung, the adrenal glands, Sanjiao and Yuanzhong should be chosen.
6. For the damp-heat constitution, the points like lung, large intestine, ear apex, liver, Sanjiao, heart and Shenmen should be chosen.
7. For the constitution of Qi depression, the points like liver, pancreas and gallbladder, heart, Shenmen, Sanjiao, subcortex and endocrine should be chosen.
8. For the special endowment constitution, the points like Fengxi, lung, spleen, stomach, endocrine, Sanjiao and Shenmen should be chosen.

Acupoints chosen according to different symptoms

1. For cardiovascular system, the points like heart, small intestine, lung, thoracic, sympathy and the adrenal glands should be chosen.
2. For respiratory system, the points like lung, spleen, kidney, trachea, swallow, antitragic apex and the adrenal glands should be chosen.
3. For digestive system, the points like spleen, stomach, liver, pancreas and gallbladder, large intestine and small intestine should be chosen.
4. For sub-health articular system, the points like Shenmen, the adrenal glands, liver, kidney, cervical vertebra, lumbar and knee should be chosen.
5. For urogenital system, the points like kidney, bladder, internal genital organ, endocrine, Yuanzhong and the adrenal glands should be chosen.
6. For nervous system, the points like Shenmen, subcortex, heart, occiput, inner ear, outer ear and kidney should be chosen.

Note: The above acupuncture points selection criteria are the 2008 Chinese version of the “National Standard Auricular Point Name and Positioning” ear acupuncture map (GB/T 13734-2008 “Auricular Point Name and Positioning”)