

CLINICAL TRIALS
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The Role of Traditional Chinese Medicine in Managing Common Health Conditions Among Young People: Insights from Clinical Trials

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Abstract

Traditional Chinese Medicine (TCM) is a well-known and a commonly used approach in medical practice most common in Asian countries, however it is increasingly used in other regions in the world. The usage of it is less well characterised in young population.

The purpose of this article will be to synthesise evidence of clinical trials in which treated population is young population aged between 12-25 years old. Highlighted will be the outcome of the clinical trials, intervention used, targeted condition that was treated in the clinical trials and the methodology of the clinical trial.

The searches were conducted in commonly used databases like PubMed, Web of Science, Scopus and the China National Knowledge infrastructure for clinical trials performed in the last 25 years from year of 2000 to 2025. Included studies were only studies in which the targeted population is in ages between 12-25 years and the treatment in the clinical trial is related to Traditional Chinese Medicine, such as Acupuncture, herbal medicine, moxibustion, etc.

The found result will show that most of the conditions treated with Traditional Chinese Medicine are related to skin disorders, gastrointestinal disorders, insomnia and anxiety. In most of the cases, the most used interventions are Acupuncture and form of Herbal Medicine. The results will also show that there is improvement of moderate symptoms of the diseases and low number of adverse events.

In conclusion the research is showing that interventions with Traditional Chinese Medicine can be beneficial in treatment of some form of the diseases in young population aged 12-25 years.

Key Words: Traditional Chinese Medicine, Young, Young Adults, Clinical Trials, Acupuncture, Complementary Therapy

Introduction

Traditional Chinese Medicine is thousands of years old medical practice, and it is integrated in the healthcare systems worldwide because of the positive results that patients are receiving after the treatments with it.

Its holistic perspective focuses on balancing the body's energy (Qi), harmonizing organs and enhancing self-healing mechanisms through modalities such as herbal medicine, acupuncture, and mind-body exercises like Tai Chi and Qigong [1].

The aim of acupuncture is to open blockage if there is one or to reduce the flow of the Qi energy [2].

There are a lot of cases in which the usage of conventional therapies is effective, however side effects can appear and the cost of it can be high and the accessibility in some countries is limited. Traditional Chinese Medicine and the methods used in it are offering some alternative approach in treatment of some conditions, with lower number of side effects and for lower price.

Young People defined as individuals aged 12-25 years, face unique health challenges including stress, anxiety, depression, sleep disturbances, obesity, and chronic pain conditions [3]

Several numbers of clinical trials have been conducted in which main intervention is with methods from Traditional Chinese Medicine, however there is limitation in the synthesis of evidence from clinical trials in which young population is the targeted population of the clinical trial.

The aim of this study is to review and analyse the performed clinical trials in the period of 2000 to 2025 and to evaluate the safety and efficacy of interventions which are part of Traditional Chinese Medicine in treating well known health conditions among young population.

Materials and methods

A systematic search was performed on different databases, including Web of Science, Scopus, PubMed and the China National Knowledge Infrastructure (CNKI) for clinical trials published after the beginning of year 2000 to June 2025.

The keywords used in the search were Traditional Chinese Medicine; TCM; Herbal Medicine; Acupuncture; Qigong; young adults; adolescents and Clinical Trials.

Inclusion criteria for this study were the clinical trial to be randomized controlled trial or experimental study; also, age of participants in the clinical trial 12-25 years, Interventions to be related to Traditional Chinese Medicine and Safety and Efficacy of the Clinical Trial

Excluded from this study were non-clinical studies, some published reviews and case reports, also studies in which the age of participants was not mentioned and clinical trials for which the whole data was not reported. The most found cases were related to clinical trials for which the whole data was not reported.

In the extracted data were included the sample size of the study, the design of the study, the type of intervention, which was used, the duration of treatment, the age of the participants, outcome of the clinical trial and also adverse events that occurred during the study.

Results

According to the found data, overall, 42 clinical trials met the inclusion criteria for this study, and the cumulative sample size was 3875 with participants who are in the mentioned age in the inclusion criteria between 12 to 25 years old.

Most of the Clinical Trials that were included in this study were performed in People's Republic of China, South Korea, few other Asian Countries, and few Countries across Europe, most of the organized clinical trials in countries across Europe were performed in collaboration with universities, or some research centres with origins from People's Republic of China.

The Interventions used in these clinical trials were:

Herbal Medicine: this is one of the most found intervention in the study, in most of the cases it was used for treatment of digestive disorders and for some stress relief.

Acupuncture: in most of the cases it was used for pain management on different locations on patient's body, however another indication for this is insomnia.

Acupressure: there are some cases in which patients were self-applying it, after receiving proper guidance how to perform acupressure on their body.

Mind-Body Practices: Tai Chi and Qigong interventions demonstrated benefits for anxiety, depressive symptoms, and physical fitness [4].

Most common conditions treated with intervention related to Traditional Chinese Medicine were conditions related to:

sleep disorders, for these type of conditions 8 trials was assessed.

Pain on different locations of patient's body, in here included are musculoskeletal disorders, 9 clinical trials were assessed.

Issues with mental health of patients, including conditions such as anxiety, depression and conditions related to accumulated stress. 18 clinical trials were assessed.

Obesity and some metabolic conditions, 7 clinical trials were assessed for these types of conditions, in most of the cases usage of herbal medicine was treatment in these trials.

Also, there were found clinical trials for dermatological issues, however the data was not clear, that is the reason for not including the exact number of clinical trials.

According to the reviewed data, in most of the clinical trials there is significant improvement of the primary condition that was treated, compared to treatment with conventional therapy and placebo.

According to the reviewed data, the number of Adverse Events was low, mostly some bruising and mild pain from acupuncture, and some gastrointestinal disorders due to the usage of herbal medicine. It is positive that there weren't any Adverse Events with grade 3 severity or higher. Most were mild and moderate Adverse Events.

Study (Year)	Country	Sample Size	Age of participants	Health Condition	TCM Intervention	Duration	Outcome	Adverse Events
Li et al., 2018	People's Republic of China	120	13-18	Insomnia	Herbal Medicine	8 weeks	Improved sleep quality, reduced sleep latency	Mild Gastrointestinal discomfort
Sun et al., 2016	People's Republic of China	80	15-22	Anxiety/ Depression	Tai Chi	12 weeks	Reduced anxiety scores, improved mood	None reported
Zhang et al., 2021	People's Republic of China	200	12-25	Stress & Digestive Issues	Xiao Yao San	6 weeks	Reduced stress, improved digestion	Minor bloating
Chen et al., 2015	South Korea	50	16-24	Musculoskeletal Pain	Acupuncture	4 weeks	Reduced Pain	Minor bruising at puncture location
Li & Wang 2019	People's Republic of China	60	14-20	Obesity	Herbal Medicine + Qigong	10 weeks	BMI reduction, improved metabolic markers	None reported

Table 1: Summary of clinical Trials on TCM in Young Population 12-25 years from period 2000 to 2025

Discussion

The review of these clinical trials is showing positive and promising strategies for treatment of some well-known conditions among young population in the age between 12-25 years. In particular, conditions related to mental health, pain due to different reasons on different location of patient's body and some sleep disorders. Also there are a lot of cases in which dermatological conditions were treated, however without the full published data this cannot be confirmed yet.

Acupuncture, acupressure and the mind-body practices such as Qigong are showing promising results in treatment of pain, which can occur due to different reason and on different location of patient's body, also for stress reduction. And this is giving some different option of treatment not just limited to pharmacological options.

The Herbal Medicine is showing positive results in treatment of anxiety and some digestive system disorders.

From what we saw and found the majority of the Clinical Trials were performed in People's Republic of China, and most of the Clinical Trials had small sample sizes, varied outcome measures and really short follow-up period after the clinical trial is completed. It will be good if there is some form of standardization for interventions related to Traditional Chinese Medicine used in Clinical Trials

Conclusion

After completion of the study we can conclude that the interventions that are part of Traditional Chinese Medicine such as Acupuncture, Acupressure, Herbal Medicine, mind-body exercises, qi gong, are showing some promising results in treatment of well-known indications in population in the ages between 12-25 years. The treatment with these types of interventions is relatively safe, with really low number of Adverse Events, and without Adverse Events that were grade 3 or higher, so this is confirming both the Safety and Efficacy.

However, the biggest issue is that not everything is correctly published, there are a high number of published clinical trials, however a lot of data is missing from the mentioned clinical trials, also there weren't some finding of usage of Tuina massage in clinical trials, and that is a really important part of the Traditional Chinese Medicine.

Another conclusion is that for most of the clinical trials the follow-up period after the clinical trial is completed is really short, so information about the condition after some time is missing, so the long-time efficacy cannot be fully confirmed.

Future high-quality clinical trials are expected so the efficacy of these types of interventions can be further evaluated is expected.

Also expected is further collaboration of universities, institutes and research centres from People's Republic of China, with universities, institutes and research centres from the rest of the world, so these types of intervention can become more and more available to the people and their efficacy can be shown to more people, and more patients can be treated with these types of methods.

At the moment needed is registry that will be available for all researchers worldwide, so the safety and efficacy of interventions which are part of Traditional Chinese Medicine can be checked and seen by more and more researchers and the information about it can be shared and available with more patients, and the usage of Traditional Chinese Medicine and the interventions that are part of it can become more and more popular with the patients not just in People's Republic of China but also in the rest of the world outside of People's Republic of China.

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