Historical review and reflections on the participation of acupuncture and moxibustion in the treatment of epidemics in the People’s Republic of China (from 1950 until now)

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Abstract
Since the establishment of the People’s Republic of China, both the Communist Party and the government have placed great emphasis on the advancement of traditional Chinese medicine. Acupuncture and moxibustion have been actively involved in combating major epidemics such as malaria, schistosomiasis, and COVID-19. This article conducts a historical review of these three significant cases to elucidate how the acupuncture community has effectively utilized its unique advantages and characteristics through theoretical discussions, clinical practices, experimental research, as well as receiving administrative leadership and political support from the Communist Party of China and government. We provide an objective evaluation of their effectiveness while summarizing historical experiences to serve as a reference for future utilization of acupuncture and moxibustion therapy in epidemic relief efforts. Additionally, propose four suggestions: strengthening Party leadership and enhancing political support; timely summarization of experiences to establish programs and systems; deepening scientific research by integrating experimental findings with clinical practice; focusing on public awareness campaigns and education to solidify grassroots foundations.

Keywords: acupuncture and moxibustion; the People’s Republic of China; epidemics; malaria; schistosomiasis; COVID-19
Background

Acupuncture and moxibustion consist of two parts, needles and moxibustion, and are specialties of traditional Chinese medicine (TCM). Acupuncture refers to the use of needles (usually millimetre needles) under the guidance of TCM theory to penetrate into the patient’s body at a certain angle, and the use of twisting and lifting and insertion of needles to stimulate specific parts of the human body to achieve the purpose of treating diseases. The puncture points are called acupoints. Moxibustion is the use of prefabricated moxibustion cones or moxibustion grass on the surface of the body on a certain point burning, smoking and ironing, the use of heat stimulation to prevent and treat diseases. For thousands of years, acupuncture and moxibustion have had a remarkable contribution to the defence of health and the reproduction of the nation. However, during the Republican period, due to the rejection of TCM by the Republican government, acupuncture failed to participate in the public governance of social health. After the founding of the People’s Republic of China, acupuncture and moxibustion has played a crucial role in treating numerous major epidemics under the guidance of the CPC and the government, contributing to alleviating patients’ suffering and safeguarding public health. However, current academic focus primarily lies on studying and summarizing historical experiences of acupuncture and moxibustion in epidemic prevention and treatment during ancient times, leaving significant gaps in understanding its historical facts and significance after New China’s founding. This paper retrospectively examines three widely spread and harmful infectious diseases – malaria, schistosomiasis, and COVID-19 to review acupuncture’s historical experience and its relevance post-New China era. The study aims to provide a historical reference for offering insights into leveraging its unique advantages for future epidemic treatment.

Acupuncture and moxibustion in the treatment of malaria in the 1950s and 1960s

Discussion on the theory of acupuncture and moxibustion in the treatment of malaria in the TCM circle

In 1950, the Shanghai traditional Chinese medicine Teachers’ Research Association organized an acupunture symposium in Shanghai to discuss the acupuncture and moxibustion treatment of malaria and developed a comprehensive set of protocols for selecting acupuncture points for malaria treatment. During the early years of the People’s Republic of China, Lu Zhijun’s “New Acupuncture and Moxibustion” and Zhu Lian’s “New Acupuncture and Moxibustion” were published as monographs on acupuncture and moxibustion, documenting acupoint selection methods for treating malaria through acupuncture [1]. Since then, further advancements in the academic discipline of acupuncture for malaria have been made based on traditional Chinese medical texts or personal experiences from practitioners or teachers. For instance, Ye Jinqiu compiled detailed documentation on acupuncture points and techniques for treating malaria by referring to classical Chinese medical textbooks such as “Huangdi Neijing,” “Thousand Golden Essentials,” and “Jingue Quanshu.” Some scholars have attempted to explain the mechanism behind acupuncture treatment for malaria by integrating modern medical theories [2]. They proposed hypotheses suggesting that acupuncture exerts therapeutic effects by regulating autonomic nerves related to heart function, intestinal activity, and sweating regulation while also enhancing hematopoietic organ function to increase white blood cell production against malarial parasites. The abundance of articles discussing theories surrounding the use of acupuncture and moxibustion in treating malaria during that time period reflects both the prevalence of this disease as well as the active engagement among Chinese medicine practitioners who were eager to contribute towards its prevention [3].

Popularise acupuncture and moxibustion for malaria clinical treatment and experimental research

In addition to doctrinal discussions, the profession actively engaged in clinical practice and experimental research on acupuncture treatment for malaria. In August 1954, the Experimental Institute of Acupuncture and Moxibustion Therapy, led by Zhu Lian under the Central Ministry of Health, collaborated with the Parasite Teaching and Research Group of Peking Medical College and the Peking Association of traditional Chinese medicine to form a malaria research team. This team conducted a clinical experimental study on acupuncture treatment for malaria at tungsten mines in Hukeng, Jiangxi Province [4]. The leadership and organization of this study by a nationally authoritative medical institution reflects its recognition of the significance of acupuncture in treating malaria. Some Chinese medicine practitioners incorporated modern medical testing methods into their approach by conducting blood smear laboratory tests before and after acupuncture treatment to observe the presence or disappearance of malaria parasites prior to admission and cure decisions. Additionally, they followed up with treated patients over a specific period to ensure complete recovery without recurrence [5, 6]. In August 1956, during the National Professional Conference on Malaria Control held in Guangzhou, Liang Naijin (director of Guangdong Provincial Experimental Hospital of traditional Chinese medicine was specially invited to deliver a report on using acupuncture and medicine for preventing and controlling malaria [7]. This marked the first national meeting where advocating acupuncture as a treatment for malaria occurred. The conference compiled “Malaria Prevention and Control Manual,” which includes an introduction in its “Traditional Chinese Medicine Therapy” section about selecting acupuncture points and formulas for treating malaria [8].

Acupuncture and moxibustion in the treatment of schistosomiasis in the 1950s and 1960s

Clinical attempts to control antimony toxicity by acupuncture

The existence of schistosomiasis on a large scale in China was confirmed at the beginning of the twentieth century. Schistosomiasis, along with malaria, posed a significant threat to public health and well-being during the early years of New China’s establishment. Antimony potassium tartrate (commonly known as “antimony agent”) was widely used for schistosomiasis treatment; however, its efficacy proved suboptimal. In order to address this issue and mitigate toxicity concerns, the Chinese medical community conducted clinical observations on acupuncture as a means to prevent and treat toxic side effects associated with antimony. In April 1956, the Institute of TCM established a task force dedicated to the prevention and control of schistosomiasis. The task force conducted an extensive three to six-month observation in the endemic areas of East China, focusing on evaluating the therapeutic effects of acupuncture therapy on clinical symptoms in patients with early- and late-stage schistosomiasis, as well as its impact on parasite elimination [9]. During their investigation at Jiaxing Blood Defence Hospital’s antimony three-day therapy treatment ward, it was observed that acupuncture demonstrated superior efficacy compared to Western medicine in alleviating antimony toxicity reactions. Notably, acupuncture exhibited positive effects on symptoms such as chest tightness, shortness of breath, twitching of extremities, distension in head and abdomen regions, and arthralgia [10]. As a result of the influential findings from the Institute’s Task Force on Schistosomiasis Prevention and Control efforts, all blood defence units within the Yangtze River basin adopted acupuncture therapy for preventing and managing toxic reactions caused by antimony agents. Reports from Hunan, Jiangsu Guangdong Shanghai Zhejiang indicated that during the latter half of 1,956 alone, a total number of 1,870 patients received acupuncture.
treatment for antimony agent toxic reactions with an average effectiveness rate reaching 98.19% [11]. Consequently, the practice utilizing acupuncture for preventing and treating antimony toxic reactions gained widespread recognition.

National policies support the involvement of acupuncture and moxibustion in schistosomiasis treatment

In early 1957, the People's Daily published an editorial advocating for enhanced organization of Chinese medicine practitioners to actively participate in the prevention and treatment of schistosomiasis [12]. Subsequently, in December, the National Schistosomiasis Research Committee convened its second meeting where it decided to extensively implement a three-day antimony treatment regimen. Additionally, a formula for acupuncture therapy and acupoints was formulated to mitigate the toxic side effects of antimony, with wide-scale adoption being recommended. On 20 April 1957, the State Council issued its “Directive on the Elimination of Schistosomiasis”, reaffirming acupuncture’s efficacy in reducing antimony reactions [13]. Guided by this central directive, acupuncture became more extensively involved not only in preventing and treating antimony side effects but also addressing early or advanced schistosomiasis and associated clinical symptoms such as ascites elimination and liver/spleen enlargement treatment. Furthermore, studies have demonstrated significant therapeutic effects of spaced ginger moxibustion and septic moxibustion on ascites and hepatosplenomegaly treatment in advanced schistosomiasis. During 1957–1958, the Ministry of Health sequentially compiled the Manual of Prevention and Control of Schistosomiasis and the Programme of Comprehensive Treatment for Late-stage Schistosomiasis using Traditional Chinese and Western Medicines (Draft) – Acupuncture and Moxibustion Therapy. These documents provided a consolidated specification for acupuncture in preventing and managing toxic side effects caused by antimony agents, as well as treating schistosomiasis complications, including specific acupoints selection and procedural guidelines. The formulation and release of these two documents marked a significant milestone in establishing national standardized guidelines for acupuncture treatment in schistosomiasis. In October 1959, the National Schistosomiasis Research Committee of the Standing Committee held an enlarged meeting to review the research achievements in schistosomiasis and other parasitic diseases over the past decade. Acupuncture and moxibustion therapy were highly valued at this meeting, with recognition that “acupuncture and moxibustion therapy have yielded positive results for schistosomiasis treatment, and integrated TCM with Western medicine has demonstrated superiority.”

Acupuncture and moxibustion in the treatment of COVID-19 in the 21st century

National public opinion policy support, academic discussion in the industry

Since the outbreak of New Crown Pneumonia in China in December 2019, the CPC and the government have called for the combination of Chinese and Western medicine in treatment, and General Secretary Xi Jinping has repeatedly emphasized the need to adhere to “the combination of Chinese and Western medicine, and the use of both Chinese and Western medicines”. The People's Daily, Xinhua News Agency (Xinhua), Guangming Daily, China Traditional Chinese Medicine News, and many other official media have reported on TCM's fight against the epidemic, providing public opinion support for TCM's in-depth participation in the prevention and treatment of the epidemic, and expanding and enhancing the scope and strength of TCM's public impact. 7 March 2020, the website of the Central Commission for Discipline Inspection and National Supervisory Commission reprinted the Xinhua News Agency report, “To fight against the outbreak of C.N.C. Pneumonia, what has China done for the world? What has it done for the world?”, again providing strong public opinion support for Chinese medicine’s fight against the new coronavirus pneumonia epidemic, which quoted Yu Yanhong, a member of the Central Steering Group, a member of the Party Group of the National Health Commission, and Secretary of the Party Group of the traditional Chinese medicine Bureau, as saying at a press conference in Wuhan:“China's diagnostic and treatment programme is the result of Chinese medicine and Western medicine working side by side to fight the epidemic, and of their common wisdom. and the crystallisation of common wisdom. In the treatment programme, Chinese medicine has a relatively important position [14].”

Simultaneously, the TCM community engaged in discussions regarding the application of acupuncture for combating epidemics. For instance, Wang et al. examined ancient and contemporary literature to assess the viability of acupuncture therapy as an intervention for novel coronavirus pneumonia. They proposed a protocol for auricular acupuncture points specifically targeting novel coronavirus pneumonia [15]. Liu et al., by reviewing historical treatments involving acupuncture against epidemics, put forth a theoretical framework supporting the feasibility and reliability of acupuncture intervention. They developed a distinctive “acupuncture program” encompassing staged treatment for new coronavirus pneumonia, meridian identification, selection of appropriate acupuncture points, and methods for applying this therapy [16]. Zhang et al., through organizing records from ancient Chinese medical texts on acupuncture's role in preventing epidemic diseases, provided relevant treatment measures addressing fever, respiratory failure, as well as other complications associated with cardiovascular and cerebral vascular diseases commonly observed in patients with neocoronyangitis [17]. These theoretical discussions have furnished valuable information and treatment concepts applicable to utilizing acupuncture therapy in both prevention and management of neocoronary pneumonia.

Acupuncture and moxibustion participate in clinical treatment, experimental studies have been carried out one after another

During the early stages of the new coronavirus pneumonia epidemic, the Chinese Acupuncture and Moxibustion Society released the Guidelines for acupuncture intervention in new coronavirus pneumonia (first edition), which served as the earliest authoritative prevention and treatment program based on acupuncture and moxibustion in China at that time [18]. In March 2020, building upon experiences from various regions in using acupuncture to prevent and control the epidemic, an expert group from the Chinese Acupuncture and Moxibustion Society issued the Guidelines for acupuncture intervention in new coronavirus pneumonia (second edition), providing a comprehensive framework for acupuncture interventions based on disease progression phases – medical observation period, clinical treatment period, and recovery period along with specific grouping of acupoints and operational methods for each phase [19]. Notably, frontline doctors involved in anti-epidemic efforts have demonstrated exemplary use of acupuncture therapy to address challenges faced by critically ill patients. For instance, Professor Fang Bangjiang from Longhua Hospital affiliated with Shanghai University of Traditional Chinese Medicine successfully reduced or replaced mechanical ventilation through acupuncture therapy at Lei Shen Shan Hospital, effectively alleviating respiratory failure among critically ill patients. Additionally, Dr. Liu Ning from Beijing Dongzhimen Hospital employed acupuncture techniques to rapidly alleviate symptoms such as coughing, high fever, back pain experienced by patients at Hubei Combined Hospital of Traditional Chinese and Western Medicine. Similar approaches utilizing auricular acupoints, body acupoints, and moxibustion therapy have been implemented worldwide to mitigate clinical symptoms among patients. Furthermore, preliminary experimental research has been conducted on the application of acupuncture and moxibustion for the prevention and treatment of neocoronitis. For instance, a collaborative effort between the Chinese Academy of Traditional Chinese Medicine, the First Affiliated Hospital of Tianjin University of Traditional Chinese Medicine, and other institutions systematically elucidated the multi-target mechanism underlying acupuncture’s efficacy in treating neocoronary pneumonia using bioinformatics/topology approaches, resulting in the
Summary and reflection

Effectiveness and evaluation of acupuncture and moxibustion in the treatment of epidemic diseases

During the 1950s and 1960s, there was a prevalence of clinical reports documenting the use of acupuncture for malaria treatment. While numerous reports claimed its effectiveness, challenges such as imperfect and incomplete testing methods, as well as varying standards of cure across different locations, hindered objective evaluation of acupuncture’s therapeutic effects on malaria. Given that many medical approaches at that time were unable to completely eradicate the disease, acupuncture demonstrated potential in alleviating clinical symptoms among malaria patients. Although it did not provide a complete cure, its simplicity and cost-effectiveness resulted in reduced medical expenses and resource utilization, making it widely embraced by the public. Within limited circumstances, acupuncture played a positive role in mitigating the harm caused by malaria while safeguarding people's health and relieving patient symptoms.

The application of acupuncture in the treatment of schistosomiasis primarily focuses on mitigating antimony toxicity and managing certain clinical symptoms during the early or late stages of the disease, rather than directly eradicating parasites or providing a cure. While acupuncture can yield some positive outcomes in addressing schistosomiasis, its associated complications, and antimony toxicity reactions, it is not a panacea and shares limitations akin to chemical drugs like atropine that were initially employed for managing toxic reactions. As drug research progressed in the 1960s and 1970s, more efficacious and less toxic alternatives such as antimony potassium tartrate gradually replaced earlier treatments for schistosomiasis. Furthermore, improved solutions emerged for treating other complications through various prevention and treatment methods. Consequently, the prevalence of schistosomiasis eventually became history alongside the completion of acupuncture therapy’s mission.

Acupuncture and moxibustion treatment for COVID-19 has been implemented with certain outcomes under the support and guidance of government policies. However, there is still ample room for improvement in terms of the extent of participation and popularity within this scope. The clinical application of auricular pressure points, acupoints, acupoint massage, moxibustion, and other medical techniques is relatively limited compared to simple acupuncture. Furthermore, the involvement in treating symptoms such as fever, coughing, dyspnea, emotional regulation among patients, post-disease rehabilitation, and comprehensive treatment for severe cases remains insufficient. There are three major challenges regarding acupuncture therapy in preventing and treating new coronavirus pneumonia: firstly, frontline healthcare workers wearing multiple layers of gloves experience reduced tactile sensitivity which poses occupational exposure risks when performing acupuncture treatments; this objectively limits the utilization of acupuncture therapy along with its associated peripheral technologies despite their convenience during operation; secondly although prevention and control programs have been developed by organizations like the Chinese Acupuncture Association, their actual ability to participate in frontline rescue efforts or patient treatment remains limited; thirdly due to the requirement for one-on-one treatment by acupuncturists during acupuncture and moxibustion sessions may not be sufficient to accommodate a large number of patients in remission [15].

Summary and suggestions of acupuncture and moxibustion in the treatment of epidemic diseases

Strengthen the CPC’s leadership and enhance political security.

Since the establishment of the People’s Republic of China, under the leadership of the CPC and the government, Chinese medicine has made remarkable progress and advancements. It has played a crucial role in shaping China’s unique healthcare system and contributed valuable insights into global health governance. Whether it was acupuncture’s involvement in treating malaria and schistosomiasis during the 1950s and 1960s or its recent application in managing neocoronitis, the unwavering support from CPC and governmental authorities has been indispensable. To ensure that acupuncture fulfills its potential in promoting public health and effectively controlling epidemics within this new era of socialism with Chinese characteristics, several key measures need to be taken: firstly, strengthening CPC leadership; secondly, fostering comprehensive recognition among all levels of health administration regarding acupuncture’s significance; thirdly, enhancing administrative practices while upgrading systemic frameworks; fourthly, integrating acupuncture into contingency plans for sudden outbreaks of infectious diseases; finally, providing reliable policy-level guarantees.

Summarize experience in time and form a plan and system. The involvement of acupuncture in the treatment of malaria and schistosomiasis during outbreaks in the 1950s and 1960s demonstrated the academic community’s commitment to conducting extensive doctrinal discussions and clinical treatments. In a timely manner, relevant meetings were convened to summarize experiences, unify understanding, and develop programmatic documents (such as Programmes or Manuals) with consensus from the academic community. These documents were subsequently promoted by national health management departments at all levels through administrative means, effectively guiding nationwide efforts in epidemic treatment. The formulation and release of these documents had marked the systematic organization and institutionalization of knowledge and experience pertaining to acupuncture-based epidemic treatments. To further advance acupuncture’s role in combating epidemics, it is essential to promptly summarize effective treatments reported in individual cases, consolidate frontline clinical experiences, and create up-to-date normative, systematic, and programmatic guidelines.

Combination of experimental and clinical research, deepening scientific research achievements. In the clinical application of acupuncture for the prevention and control of new coronary pneumonia, it is crucial to fully comprehend the distinctive characteristics of acupuncture intervention and maximize its unique potential. Acupuncture can serve as a standalone approach in combating epidemics, or be synergistically combined with other Chinese and Western medical methods. Furthermore, it is essential to enhance the treatment of new coronary artery disease through acupuncture and moxibustion, promoting disease recovery while investigating their impact on regulating human mood through experimental research [16]. By employing scientific methodologies to elucidate mechanisms and providing evidence of effectiveness and scalability using scientific language, we can rely on reasonable, systematic, and rigorous scientific research to deepen our understanding of acupuncture’s therapeutic effects on neocoronitis. This will ultimately facilitate widespread adoption of acupuncture therapy in various countries and regions.

Pay attention to publicity and education, consolidate the mass base. The utilization of publicity and education to consolidate the mass support for acupuncture and other TCM therapies is conducive to promoting the extensive application and popularity of acupuncture and moxibustion. This publicity and education primarily encompass two aspects: firstly, during the process of acupuncture treatment, doctors should pay attention to conducting necessary missionary work and ideological mobilization with patients, alleviating their concerns striving for trust and cooperation, tailoring individual rehabilitation programs based on different patient conditions, as well as ensuring effective follow-up visits; secondly, through diverse forms of media propaganda, principles of acupuncture treatment along with its efficacy and advantages should be introduced to the general public in order to expand the utilization of acupuncture and moxibustion. Simultaneously, various forms of media promotion can introduce medical principles behind acupuncture treatment while highlighting its effectiveness and advantages in order to enhance public trustworthiness towards this therapy.

In general, the historical involvement of acupuncture in the rescue...
and treatment of major epidemics since the establishment of New China reflects both the role of TLC within contemporary China's socialist healthcare system and the TCM policies implemented by the Party and State for public welfare. From its inception to present day, acupuncture and moxibustion, as integral components of TCM therapies, have actively engaged on the frontlines against epidemics, making significant contributions towards their eradication and safeguarding public health in New China. By reviewing this history, summarizing experiences, adjusting working methods, enhancing system construction, and promoting scientific applications; acupuncture and moxibustion therapy will continue to demonstrate unique advantages in preventing and treating epidemics.

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