Challenges and strategies for implementing Chinese medicine during COVID-19 in Malaysia

Chiah Shean Teo, Pik Munn Tan, Connie Siew Ing Shu, Zi Xian Choo, Kian Keong Te

Abstract

Background: Implementing Chinese medicine (CM) for COVID-19 in Malaysia is challenging for local CM practitioners. The successful experience of CM in China can only be partially adopted in Malaysia due to differences in the national health care system and legislation, geographical health disparities and cultural diversity. Despite all the challenges, Malaysian CM practitioners have managed to thrive and found a Malaysian CM solution amid COVID-19.

Methods: A literature review was conducted using various databases and gray literature from inception to August 15, 2021, to evaluate the challenges faced by Malaysian CM practitioners and the corresponding strategies in Malaysia’s country context during COVID-19.

Results: A total of 9 challenges and issues faced by Malaysian CM practitioners during COVID-19 were identified. Their corresponding strategies were further categorized into 3 phases, namely, preparation, development and implementation. The strategies were appraised using the SWOT analysis method, and 17 factors were identified. Strength analysis includes personalized CM prescriptions with online consultations in Malaysia. Limited research input for CM in COVID-19 and the inadequate research capacity of local CM institutions are discussed in threat analysis.

Conclusion: Various approaches have been implemented by Malaysian CM practitioners to provide safe, qualified and effective CM services for COVID-19 at the community level, aiming to reduce the national health care burden. A public-private partnership initiative can bridge the knowledge gap and optimize the role of CM in the health emergency system. This Malaysian CM solution can provide insights to interested countries to capitalize on the potential contribution of Traditional and Complementary Medicine (T&CM) in the era of COVID-19.

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1. Introduction

The COVID-19 pandemic has affected Malaysia and led to unprecedented economic and public health concerns in the population. As of August 15, 2021, a total of 1,404,899 confirmed cases of COVID-19, 12,510 deaths and 1,145,128 recovered cases have been reported in Malaysia. The first COVID-19 case in Malaysia was reported on January 25, 2020, followed by the detection of the first locally transmitted case on February 5, 2020. The government of Malaysia implemented the Movement Control Order (MCO) on March 18, 2020 and instituted various public health strategies, such as digital contact tracing applications and social distancing measures, to break the chain of transmission. A standard operating procedure (SOP) was introduced for the public in general, and specific SOPs were imposed on different industries.

The role of Chinese medicine (CM) in managing the COVID-19 pandemic is widely acknowledged. Reports have shown that deliberate CM intervention measures have successfully helped reduce mortality and deterioration among COVID-19 patients from mild to moderate cases, in addition to maintaining the wellbeing of health care workers. China in particular has demonstrated remarkable
epidemic control with CM intervention throughout all phases of COVID-19, from prevention to post-COVID-19 rehabilitation. However, implementing CM for COVID-19 in Malaysia is rather challenging for local CM practitioners. The successful experience of CM for COVID-19 control in China cannot be directly implemented in Malaysia due to differences in the health care system and legislation, geographical health disparities and cultural diversity. The Malaysian national health care system is generally dominated by modern medicine. The Traditional and Complementary Medicine (T&CM) Act 2016 (Act 775), which regulates T&CM practice and practitioners, was gazetted in 2016, and CM is one of the recognized practice areas. According to the enforcement timeline of Act 775, the Ministry of Health Malaysia (MOH) initiated the registration of practitioners in 2021, and it is expected to be completed only by 2024. Therefore, there are no public service schemes for T&CM practitioners and insufficient funding and support for T&CM development at the national level.

The unique features of T&CM in Malaysia include highly diversified T&CM practice areas, strong ethnocultural ownership and provision of T&CM dominated by the private sector. Since Malaysia’s independence in 1957, CM services have been provided mainly by the private sector at the community level through charitable organizations. Most CM practitioners are well trained to work in community-based facilities, but few have had the chance to receive training in hospital settings. This training approach is very different compared to the training modality of CM physicians in China, which includes training for both CM and modern medicine. There were also differences in demographic characteristics, attitudes toward traditional medicine, lifestyle factors and cultural practices between the 2 countries. Therefore, China’s CM solution can only be partially adopted, and novel approaches must be employed to implement CM during COVID-19 in the Malaysian context.

Despite the aforementioned challenges and issues, Malaysian CM practitioners decided to thrive and found a Malaysian CM solution amid COVID-19. This review aimed to evaluate the challenges faced by Malaysian CM practitioners and the strategies to overcome them in the Malaysian context during COVID-19.

### 2. Methods

A literature review was conducted using PubMed, Science Direct, Google Scholar, and the CNKI database and gray literature including guidelines, national protocols, official statements and field updates in 3 languages (English, Chinese and Malay) from inception to August 15, 2021, to evaluate the challenges faced by Malaysian CM practitioners and the corresponding strategies, focusing on the implementation of CM for COVID-19 in Malaysia.

### 3. Results

We identified a total of 9 challenges and issues faced by Malaysian CM practitioners during COVID-19 (Table 1). Their corresponding strategies were further categorized into 3 phases, namely, preparation, development and implementation (Table 2).

The corresponding strategies and approaches have been categorized into three different phases as follows:

#### 3.1. Phase 1 or preparation phase

#### 3.1.1. Formation of Malaysian Chinese Medicine task force for epidemic control

The first approach is to form a task force for CM epidemic control to unite local CM-related organizations for achieving one goal, namely, to use CM in reducing the burden of Malaysia’s national healthcare system. A “Chinese Medicine Task Force Malaysia (COVID-19)” (hereafter referred to as the task force) was formed on March 22, 2020, by local CM organizations and universities. The vision of the task force is to become the platform for Malaysian CM practitioners to fight COVID-19. Its goals are as follows: 1) to provide safety guidelines for Malaysian CM practitioners; 2) to provide CM-related information on COVID-19 for public education; 3) to provide relevant assistance to medical professionals; and 4) to provide CM for people in need of optimizing body functions and to improve COVID-19-related symptoms for discharged patients (Fig. 2). Members of the task force then formed the Malaysian Chinese Medical Society of Epidemic Control and Prevention (CMEDS)
in January 2021 to systematically organize and manage activities carried out by the task force.12

3.1.2. Engagement with Chinese experts in ongoing Chinese medical learning

In MOH’s COVID-19 Management Guidelines in Malaysia No. 5/2020, it is clearly stated that all COVID-19 confirmed cases would be clinically managed based on conventional medicine protocols. Patients diagnosed with COVID-19 will either be referred to a designated government hospital or a Low-Risk COVID-19 Quarantine and Treatment Centre for quarantine and treatment.13 CM practitioners did not have the opportunity to manage COVID-19 patients clinically from the beginning of the outbreak, and much is unknown about the pathogenesis, transmissibility, severity, and other features associated with COVID-19. Hence, the task force has consulted with CM experts abroad to understand COVID-19 from the CM perspective and its clinical application in the management of COVID-19. The task force moderated an online conference, and the experiences shared by CM experts from Leishenshan Hospital in Wuhan enlightened the task force on how to implement CM epidemic control and prevention activities at the community and hospital levels. Two main approaches of the CM formula were discussed, including a generalized formula (one formula for all) and personalized formula (one formula for one person). The generalized formula approach has the advantage of supplementing qi (vital energy) by administering the same herbal formula to all populations in the affected area in a short period, with the possibility that a certain group of people with imbalance body constitution may experience adverse reactions such as diarrhea or stomach pain as its drawback. The personalized formula is preferred for hospitalized patients, as it is customized and prescribed according to individual needs.

A dialog session on live broadcast and meeting with the delegates from China on managing COVID-19 using CM was also chaired by Malaysia’s deputy director general of health.13 The head of the anti-COVID-19 medical consultant expert team along with other medical experts from China shared their knowledge and experience managing COVID-19 using CM with Malaysian T&CM practitioner bodies, academics, and researchers. One topic discussed was the suitability of Qingfei Paiku Decoction (QFPDD) in Malaysia, as one of its components, Ephedra sinesis (Ma Huang), is prohibited in Malaysia.30 CM treatment for COVID-19 patients in Malaysia must consider several factors, such as seasonal and climatic changes, geographical differences, and body constituency of the local context, which can directly or indirectly affect the human body’s physiological function and pathological changes. Therefore, the COVID-19 TCM Treatment Protocol from Guangdong Province was suggested as a reference for CM research in Malaysia, as Guangdong and Malaysia share climatic similarities.31 Additionally, a virtual conference with a live broadcast was hosted in which local CM practitioners, associations, and institutions actively participated, together with twenty thousand audience members joining online.

3.1.3. Training of trainers (TOT) sessions

Training of trainers (TOT) sessions to introduce the background knowledge, skills, and practical experience of CM to other CM practitioners has been conducted from July 2021 onwards. Before the COVID-19 crisis, CM practitioners had to focus only on the specialized skill they possessed. They may specialize in therapeutic methods such as acupuncture, moxibustion, and tuina for chronic pain and poststroke, but in the face of COVID-19, all CM practitioners must share the responsibility as healthcare workers. These TOT sessions have encouraged the local CM industry to continue their service while maintaining zero contact during the MCO. On 17 February 2021, 261 CM practitioners from various CM stakeholders attended the online sharing session hosted by the CMEC to practice CM under the new norm.

3.2. Phase 2 or development phase

3.2.1. Development of safety guidelines for Chinese medical personnel in Malaysia

CM practitioners are the most important resource for the task force. To ensure that all CM practitioners work under safe conditions, the task force issued the “Safety Guideline for CM Personnel in Malaysia (COVID-19) (Chinese version)” on 7 April 2020.14 The objectives of this guideline are to introduce the MOH safety management guidelines for COVID-19, to enhance awareness and measures against the pandemic, and to encourage the CM industry to continue serving people. This guideline is divided into three sections, where the general section describes hygiene habits, disinfection procedures, and social distance. The conventional medicine section introduces MOH guidelines for the management of COVID-19 cases, and the Chinese medicine section provides safety operation guidance to CM centers and medicinal halls. This guide was immediately distributed to major CM organizations, private hospitals with CM divisions, and tertiary education institutes with CM departments for the reference of all Malaysian CM practitioners and relevant staff.

3.2.2. Malaysia Chinese medical guidelines for COVID-19

After a back-and-forth exchange about the role of CM in COVID-19, it is clear that Malaysia must develop national CM guidelines based on CM knowledge of the clinical manifestations and disease progression of COVID-19 in Malaysia. The first edition of the “Malaysia COVID-19 Chinese Medicine Guidelines” was jointly issued by the task force and Beijing Tong Ren Tang Global Expert Group for COVID-19 Prevention and Treatment on 1 May 2020 with reference to practical experience abroad.15 The national guidelines

| Phase | Description | Strategies/approaches |
|-------|-------------|----------------------|
| 1     | Preparation | Form Malaysian Chinese Medicine task force to control epidemic Engage with Chinese experts to promote ongoing Chinese Medical learning Conduct Training of trainers (TOT) sessions |
| 2     | Development | Develop safety guidelines for Chinese medical personnel in Malaysia during COVID-19 Develop Malaysia Chinese Medical Guidelines for COVID-19 |
| 3     | Implementation | Public education on the usage of Chinese Medicine for the management of COVID-19 Herbal Drinks/Chinese Herbs for Malaysian community Zero-contact online Chinese medicine consultation Develop SOPs for Chinese Medicine services during MCO Research on the use of CM for COVID-19 |
referred to “TCM treatment plan for novel coronavirus pneumonia in Guangdong Province (Trial version 2)” by the Health Commission of Guangdong Province and the Traditional Chinese Medicine Bureau of Guangdong Province from the People’s Republic of China (PRC); the “COVID-19 Diagnosis and Treatment Guideline in China (7th ed.)” jointly issued by the China National Health Commission and National Administration of Traditional Chinese Medicine; and the protocol from other provinces in China under the guidance of Beijing Tong Ren Tang. These national guidelines are the first bilingual Chinese medical guidelines for COVID-19 released outside of China. They include recommendations for different CM approaches in all five clinical stages of COVID-19 (based on COVID-19 Management Guidelines in Malaysia No. 5/2020 issued by MOH). They serve as a general reference for CM practitioners who are participating in research related to CM practice for COVID-19. The guidelines emphasize that all COVID-19 cases shall be treated or managed in accordance with the latest Malaysian guidelines for COVID-19 management.

A second trial version of the Malaysia COVID-19 Chinese Medical Guideline was released on 22 February 2021. This version has drawn on the “Guangdong Province COVID-19 CM Treatment Protocol (2nd trial version)” and the “Diagnosis and Treatment Protocol for COVID-19 (8th trial version)”, as well as protocols issued by other states in China with experience in managing COVID-19 successfully. Nonetheless, this version was developed based on Chinese medical knowledge of COVID-19 clinical manifestations and disease progression, in line with experience and feedback from the public and patients before hospital admission and after discharge who received herbal drinks/Chinese herbs provided by the task force.

3.3. Phase 3 or implementation phase

3.3.1. Public education on the usage of Chinese medicine for COVID-19 management

Since the beginning of the COVID-19 outbreak, many different CM herbal prescriptions have circulated in the community through social media. Many Malaysians started to take herbal medicine for prevention even though a health alert was issued by local authorities due to limited knowledge and information. In Malaysia, Chinese herbs are highly accessible from CM centers and Chinese medicinal halls. The public could have self-purchased Chinese herbs according to the CM formula found in China’s Diagnosis and Treatment Protocol for COVID-19, of which the most popular formula was QFPPD. Many companies were selling unapproved products with fraudulent COVID-19 claims in Malaysia, including traditional medicinal products.

Aiming to close the knowledge gap, the task force has established a CM anti-epidemic information platform to ensure that the public understands the role and safe use of CM. The task force also shares updated information through social platforms regarding the epidemic situation and how to use CM during the epidemic. The task force has actively participated in live talk shows and in mass media interviews from local broadcast stations and online media to explain the role of CM in the fight against the epidemic. Public education is necessary to prevent the misuse of CM in Malaysia.

3.3.2. Herbal drinks/Chinese herbs for Malaysian community

The task force collaborated with a CM pharmaceutical company and a university research center to provide herbal drinks for 2 target populations in an urban conurbation, including the general population staying in the red zone and COVID-19 patients discharged from hospitals from March 2020. Malaysian MOH categorizes districts or areas into three zones based on the COVID-19 incidence rate in the past 14 days. Red zones are defined as districts with at least 41 active cases; yellow zones have one to 40 cases, while green zones have no active cases. The general population in the red zone is given the Five Leaves Drink herbal drink by post or self-pickup at the designated counter. The herbal drink consists of Herba Menthae (Bo He), Foliun Mori (Sang Ye), Herba Agastachis (Huoxiang Ye), Foliun Nelumbinis (He Ye), Herba Lophatheri (Dan Zhu Ye), Semen Cocis (Sheng Yi Ren), Poria (Fu Ling), and Rhizoma Atractylodis Macrocephalae (Sheng Bai Zhu). For discharged COVID-19 patients, CM herbs were prescribed based on a personal online assessment with tongue image uploaded and phone consultation when necessary. A 4-day complimentary supply of herbs is given in either packeted granular form or packed liquid form without prescription charges. The task force received positive feedback from consumers, which included improvements in mood and temperament, sleep quality, appetite, and energy level.

As the demand for herbal drinks/Chinese herbs increased over time and came from different states, the task force expanded its coverage area and collaborated with local CM centers to overcome location barriers. Due to ethnic and cultural diversity, engagement with local CM practitioners in each region is important, as patients’ body constitutions vary. In addition, geographical characteristics affect the formulation of herbs. With the help of local CM practitioners, the task force expanded the online CM consultation and herbal drinks/Chinese herbs services to all 13 states and 2 federal territories in Malaysia. In addition to providing herbs to the general public, the task force also started a pilot project to provide free herbal drinks to medical staff in February 2021.

3.3.3. Zero-contact online Chinese medical consultation

The online CM service by the task force initially utilized an online survey form. This form collects the demographics, medical history, current complaints, and tongue images of patients. These data are then manually transferred to a Microsoft Word document by replacing the identifier with a code to protect participants’ privacy. An online platform (www.mytcms.my) was developed with an information technology consulting company to encourage the use of CM for the public and to connect all CM practitioners and medicinal halls to ensure smooth herbal delivery. Various protocols and functions have been included to reduce medication errors, such as prescribing and dispensing errors.

Due to limited human resources in the task force and the restriction of movement during the MCO, online consultation with herbal postages has become an important method to reach out to the public. As the number of cases rise in Malaysia, the MOH has started the “home quarantine” mode whereby patients who test positive but showed no or mild symptoms (under categories 1 and 2) are treated and quarantined at home with strict monitoring by health care workers. In other words, confirmed cases must quarantine at home for at least 10 days from the day of diagnosis. Consequently, there has been a surge of COVID-19 patients asking for herbal tea for symptomatic relief. This demand has enabled the CMEC to communicate directly with confirmed cases through online consultation and provide herbal drinks/Chinese herbs to relieve symptoms such as cough, diarrhea, sore throat, and headache. As of August 15, 2021, this online platform has delivered herbal tea to approximately 3000 COVID-19 patients in various phases (quarantined at home, hospitalized, and discharged).

3.3.4. SOPs for Chinese medicine services during MCO

The Malaysian CM industry faced another challenge and was forced to cease operation for nearly two months since the implementation of the third round of movement-control orders (MCO 3.0) on June 1, 2021. Compared to the first two rounds of MCO (MCO 1.0 and MCO 2.0), the T&CM industry (including CM) was not listed as an essential service in the health care sector and thus was not allowed to operate. According to the Federal Gazette
3.3.5. CM research for COVID-19

The proposal for CM services to be integrated into the national health care system for COVID-19 was submitted to the MOH on July 12, 2021. The discussion ended up with the MOH’s suggestion to carry out retrospective research instead of immediate integration of CM in clinical practice as MOH practices evidence-based medicine. CMEC and University Tunku Abdul Rahman (UTAR) received a meeting invitation from the MOH and discussed the current use of CM for COVID-19 patients together with Tung Shin Hospital and Lam Wah Ee Hospital on July 27, 2021. The meeting was attended by the T&CM Division, Institute of Medical Research (IMR), Herbal Medicine Research Centre (HMRC), and other MOH subdivisions. Several issues concerning the safety, quality, and efficacy of CM treatment were raised.

4. Discussion

The strength (S), weakness (W), opportunity (O) and threat (T) (SWOT) analysis method is one of the analysis methods used for the in-depth analysis of COVID-19 epidemic prevention and control strategies and to formulate relevant strategic planning.23 We identified 17 factors using SWOT analysis to appraise COVID-19 CM approaches in Malaysia (Table 3).

Based on the SWOT analysis, we chose one factor from the strength and threat analyses S1 and T2 to discuss in more depth. S1. Personalized CM prescription (one formula for one person) with online consultation in Malaysia

The task force has taken reference from several selected countries such as China, United States, Indonesia, and Korea that use CM in COVID-19 with generalized herbal formulas (one formula for all) or personalized prescriptions.25-27,29 Chinese patent medicine such as Lianhua Qingwen Capsule has been approved in Brazil, Canada, Mozambique, Romania, Thailand, Ecuador, Singapore and Laos PDR.29 The task force utilized online consultations, which strictly abide by 3 out of 4 of the CM diagnosis methods—inspection, listening, and inquiry, but omit pulse palpation. This protocol is in line with the CM principle that states, “CM prioritizes tongue diagnosis in seasonal induced diseases, and pulse is significant in chronic complicated diseases”. As the course of a seasonal disease is relatively brief but undergoes rapid changes, it can be reflected in patients’ CM tongue diagnosis over time. Hence, tongue images taken by patients using their handphones and uploaded to the online platform are clinically significant bases for CM diagnosis together with their medical history and complaints. However, there

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**Fig. 1.** Flowchart of how to administer herbal drink from the time the patient completes an online form to postage of Herbal Drinks/Chinese Herbs to the patient’s home.

**Fig. 2.** Timeline of Malaysian Chinese Medical Epidemic Control, March 2020 - July 2021.
is also the shortcoming of online consultation, as patients must be familiar with online technologies, for example, smartphones and laptops with stable internet connections. There may be language barriers as well. Any patients with alarming clinical signs that require direct physical examination must be excluded from online consultations and seek medical help in hospitals. Online consultations with personalized CM prescriptions in epidemics will optimize the use of CM by reaching out to a large number of patients with limited time and human resources while ensuring the safety of CM practitioners.

T2. Inadequate emphasis on and limited research input for CM in COVID-19 due to knowledge gap between CM and modern medicine and inadequate research capacity of local CM institute

Research on COVID-19 has been an area of interest for both modern medicine and CM practitioners since the outbreak. The challenges of CM research on COVID-19 in Malaysia are closely related to the knowledge gap between the two medicine systems. In Malaysia, any research involving human subjects at MOH institutions and facilities requires prior ethics review and approval from the Medical Research and Ethics Committee (MREC). All investigators involved in the conduct of clinical studies are required to complete training in good clinical practice (GCP) with certification to ensure that trial subjects are protected and data integrity is preserved. The proposal involving herbal medicine (including CM herbs) requires written approval from the National Committee for Research and Development of Herbal Medicine (NRDHM) and National Pharmaceutical Regulatory Agency (NPRA). Several issues must be addressed for study protocols involving the use of CM herbal formulas or products or those designated as proposed investigational products. First, the proposed product used in a study must be standardized. If a CM product is in the form of a finished product, an investigation brochure (IB) is required with details of the quality control in manufacturing, authenticity/purity of the herbal content (such as HPLC analysis), and its physicochemical properties. All contents of the product must be certified by the manufacturing company and fulfill the predetermined product release specification(s) and quality with no adulteration or added banned ingredients. Second, there must be a safety assessment either in vivo or clinically conducted on the CM product/formula, which covers general/specific toxicity, pharmacodynamics, pharmacokinetics, or absorption, distribution, metabolism, and excretion (ADME) to support any level of product claims of being free from any toxicological effects or drug-herb interactions. For the efficacy, evidence of preclinical and clinical efficacy of the proposed investigational products must be presented. The presented data must be from the same product produced by the same company used in the study and not data from published references that evaluate similar CM formulas or the history of use according to ancient texts. Data pertaining to evidence or quantitative measures (laboratory or imaging evidence or pre- and post-PCR/RTK) are required. In addition, the mechanism of CM for COVID-19 symptom improvement (either antiviral/antioxidant/analgesic/anticholinergic) or the formula for treating any respiratory symptoms involved, not necessarily specific to COVID-19, must also be clarified. Any CM-related research must fulfill the above criteria before obtaining approval from MREC and carrying out a CM COVID-19 clinical study. However, the above measures have overlooked the fact that CM and modern medicines are different medicines with different bases. Lack of national research priorities, the absence of appropriate research methodology and an inadequate local capacity for conducting T&CM research are the root causes of the current situation. Due to the lack of scientific evidence that traditional herbal medicines can treat COVID-19, the director general of MOH Malaysia stated that traditional medicine can only serve as a complementary therapy for patient recovery. The lack of sufficient research has caused CM interventions to be underutilized and to underperform in public health emergencies.

With the SWOT analysis of the internal and external environments, we can observe the advantages, disadvantages, opportunities and threats of CM approaches for COVID-19 in Malaysia. Overall, the advantages outweighed the disadvantages, and the opportunities outweighed the threats.

5. Conclusion

Various approaches have been implemented by the CMEC and task force to provide safe, qualified and effective CM services for COVID-19 at the community level, setting the goal of reducing Malaysia’s national health care burden. However, in a modern medicine-dominated country such as Malaysia, Chinese medicine.

Table 3

| Subject      | Criteria description                                                                                                                                 |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Strength     | S1. Personalized CM prescription (one formula for one person) with online consultation in Malaysia.                                                |
|              | S2. Accessible to whole country, even suburban and rural areas, with involvement of local CM center.                                               |
|              | S3. Multidisciplinary involvement, i.e., legal experts’ involvement to ensure all approaches abide by the law.                                 |
|              | S4. Community based approaches to provide free medical aid and benefit those with financial constraints.                                          |
| Weakness     | W1. Lack of sustainable financial resources (source depends on public donation) for platform operation.                                                 |
|              | W2. Increasing the workload of CM practitioners as they participated in the task force on a volunteer basis.                                        |
|              | W3. Lack of participation from research personnel in the organization.                                                                               |
|              | W4. No statistical data to support the safety and efficacy of the CM, for example, the benefit of herbal drinks distributed.                      |
| Opportunity  | O1. Development of telemedicine and digital health, as it is imperative in this new normal to accelerate the capacities of online consultation services. |
|              | O2. Large demand of Malaysian population for CM in COVID-19 treatment due to limited measures/ nonspecific treatment by modern medicine.            |
|              | O3. CM internationalization enables international CM guidelines to be a reference for the local context.                                            |
|              | O4. CM is one of the recognized practice areas under Act 775 in Malaysia. Adamantinergic                                                                 |
| Threat       | T1. Lack of recognition and support by the Malaysian government, as health care system in Malaysia is dominated by modern medicine.                   |
|              | T2. Inadequate emphasis on and limited research input for CM in COVID-19 due to knowledge gap between CM and modern medicine and inadequate research capacity of local CM institutes. |
|              | T3. Cultural diversity: CM is a traditional medicine commonly practiced in the Chinese community but may not well understood and accepted by the Malaysian multicultural community. |
|              | T4. Restriction in propaganda of CM related treatment due to the Prevention and Control of Infectious Diseases Act of 1988 and Malaysian Medicines (Adverti sment and Sale) Act of 1956. |

CM, Chinese Medicine; S, strengths; O, opportunities; T, treats; W, weaknesses; O, opportunities.
research at the national level is imperative to illuminate the ben-
efits of this often underestimated health resource, leading to sub-
sequent reshaping of the current integrated health care service de-
ivery. Malaysian CM practitioners look forward to CM as a sus-
tainable and effective intervention to be appropriately inte-
rated into the national health care system in the future. A public-private
partnership initiative can bridge the knowledge gap and find areas of
convergence between government agencies and private sector
Chinese medicine practitioners to optimize the role of CM in the
Malaysian health emergency system. This Malaysian CM solution
can provide insights to countries interested in the potential contrib-
ution of T&CM to health and well-being in the era of COVID-19.

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Conflict of interests

The authors declare that they have no conflicts of interest.

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Ethical statement

No ethical approval was required, as this study did not involve
human participants or laboratory animals.

Data availability

The review used literature available from databases and online.

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