



# The Current Studies of Education for a Traditional and Complementary Medicine in Malaysia

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## Abstract

The aim of this study is to understand the current tradition and complementary medicine (T&CM) education in Malaysia. We referred to literature regarding to traditional medicine education in Malaysia, and collected the information via website or interview with faculty of T&CM in universities/colleges and Division of T&CM, Ministry of Health, Malaysia. T&CM education in Malaysia has been following China's T&CM systems for 50 years. Currently, Division of T&CM, Ministry of Health; and Ministry of Higher Education has approved 11 institutions to offer T&CM education. Students may major in Chinese herbal medicine, acupuncture, or other T&CM subjects. Generally, clinical training programs in China, Taiwan, or Australia include substantial proportion of clinical training. We report on the general information of T&CM education in Malaysia. This result would be the first-stage information for the establishment of a strategy regarding the enhancement of T&CM education in Malaysia.

## Keywords

traditional and complementary medicine, medical education

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Traditional and complementary medicine (T&CM) is an ancient medical practice that existed in human societies before the application of modern science to health. It has evolved to reflect different philosophical backgrounds and cultural origins. In recent decades, usage of T&CM has been increasing rapidly throughout the world and its acceptance has increased significantly.<sup>1</sup> The practice of modern medicine may be widespread but the use of T&CM is still practiced in many countries although it is not always included as a part of the health care system recognized by the government.

T&CM has been widely utilized by the world population for decades. In some Asian and African countries, 80% of the population depends on T&CM for primary health care purposes.<sup>2</sup> A report from Global Industry Analysts, Inc presented that the world market size of T&CM industry grew from 89.8 billion US dollars in 2011 to 114.1 billion US dollars in 2014, at a growth rate of 6.0% annually.<sup>3</sup>

Since the geographical transfer of traditional Chinese medicine from Mainland China, there has been a dependence on imported herbal medications by T&CM practitioners in other Eastern and Southeast Asian countries (Malaysia, Singapore, and Thailand), whose clientele prefer herbal medicine products from Mainland China. However, there has been an interest in developing local sources of herbal medicine plants and products.<sup>4</sup>

All member countries in the Southeast Asian region are assisting the World Health Organization in developing, strengthening, and introducing the use of traditional medicine into primary health care, which was marginalized as a result of sociocultural changes. In Thailand, there has recently been an attempt to revitalize traditional Thai medicine for the benefit of the Thailand health care system especially in rural areas.<sup>5</sup>

T&CM has made a significant contribution to the health care of the Malaysian community. It continues to be patronized by Malaysian people in their bid to seek treatment for disease and in maintaining health. Siti et al<sup>6</sup> reported that the prevalence of use of T&CM among Malaysians in their lifetime was 69.4% (67.6%-71.2%) and 55.6% (53.8%-57.4%) within the past 12 months of the study.

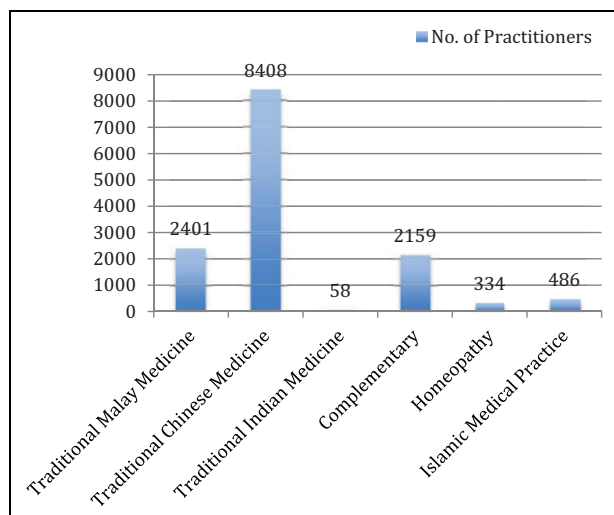
Enhancing the professionalism of graduates is a major objective of most health care education institutions today.

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**Figure 1.** Number of registered local practitioners according to traditional and Complementary medicine (T&CM) modalities, 2011.

Educating conventional health care providers about T&CM may directly or indirectly improve trainee professionalism by expanding trainees' knowledge, appreciation of diverse health care benefits and medical practices, improving T&CM physician-to-patient communication, enhancing self-care, and increasing sense of competence and job satisfaction.<sup>7</sup>

Realizing this, the Ministry of Health and Ministry of Higher Education in Malaysia took a positive and proactive approach in nurturing T&CM to ensure the quality, safety of practices, and education of T&CM.

T&CM is a system of medicine that incorporates Chinese herbal medicine, acupuncture, moxibustion, *guasha*, cupping, *tui-na*, natural medicine, homeopathy, Malay medicine, Malay massage, ayurveda medicine, chiropractic, reflexology, aromatherapy, and Islamic medicine. T&CM was introduced in Malaysia in 1878. From 2016 Malaysia has regulated the practice of T&CM on a national level. The registration of T&CM practitioners has paved the way for integration of T&CM into the mainstream health care system of Malaysia. Furthermore, in response to the increasing interest of health care consumers, the Malaysian T&CM workforce has markedly expanded over the past decades. According to the statistical data obtained from the Division of T&CM, Ministry of Health, Malaysia, as in 2011, a total of 4910 local T&CM practitioners had registered with e-PENGAMAL system since 2008. The largest increment in the registration of local practitioners was noted in 2011 with a total of 2631 T&CM practitioners.

This was attributed to a series of dialogues held throughout the country. Traditional Chinese medicine practitioners (66%) recorded the highest percentage from the total number of practitioners, followed by complementary medicine practitioners (13%) and traditional Malay medicine practitioners (11%). The number of traditional Chinese medicine practitioners and Islamic medical practitioners progressively increased in 2011 due to initiatives taken by the respective practitioner bodies<sup>8</sup> (Figure 1).

This study aimed to review the current status of T&CM education in Malaysia.

## Materials and Methods

### Study Design and Setting

This study reviewed the literature related to traditional medicine education in Malaysia, obtained relevant information via traditional medicine universities and colleges websites, interviewed (based on school visit) with 11 deans and heads of department from traditional medicine universities and colleges in Malaysia, and e-mail interviewed with 2 officers and 1 director from the Division of T&CM, Ministry of Health, Malaysia. Each university and college interview includes current student numbers, type of courses offered, study plan, T&CM course syllabus, total graduate credits, and total clinical practice duration. On the other hand, e-mail interview from Division of T&CM, Ministry of Health, Malaysia, collected information that included number of registered practitioners on E-PENGAMAL system, current status of government hospitals, T&CM Strategy, national T&CM policy or guidelines, and T&CM Acts 2016 (as shown in the appendix).

### Data Collection and Analysis

Besides interview (based on school visit) with dean or head of department from universities and colleges, e-mail interview with Division of T&CM, Ministry of Health, Malaysia, literature review was also done by referring to electronic databases, such as CNKI (<http://www.cnki.net>), and Pubmed (<http://www.ncbi.nlm.nih.gov/pubmed>), with keywords like "traditional medicine," "Malaysia," "Malay medicine," "traditional complementary medicine," "alternative medicine," and "education." Related reports and articles were searched from government-related organizations, including Division of T&CM, Ministry of Health, Malaysia (<http://tcm.moh.gov.my>), and Malaysian local T&CM universities and colleges websites.

## Results

### Brief Introduction History of T&CM in Malaysia

Ancient Malaysia received its first medical knowledge from Portugal, the Netherlands, and United Kingdom in the 15th century. Before the 15th century, indigenous or traditional native medicine constituted the type of medicine practiced by the *Orang Asli* of the Malay Peninsular and *Pribumi* of Sabah and Sarawak.<sup>9</sup>

During this period, traditional Malay medicine was strongly influenced by the animistic culture of Hindu-Buddhism, which originated from India. Subsequently, with the introduction of Islam and with the arrival of the Chinese, the practice of medicine began to change, incorporating these new set of values.<sup>10</sup> In the 18th century, traditional Chinese medicine practices began to take root in the Malayan soil. At the end of the 19th century, modern medicine was brought in by the British and was taken up quickly because of its ease of practice and effectiveness.

During this period, T&CM also started to appear in Malaysia. With the booming number of immigrants from China, the first voluntary T&CM clinic was opened in Selangor state (Pei Shan Tang) and Kuala Lumpur (Tung Shin Hospital) in 1894.<sup>11</sup>

Then, in 1955, Federation of Chinese Physicians and Medicine Dealers Associations of Malaysia established Malaysia Chinese Medicine College.<sup>12</sup>

By the 20th century, modern medicine was the mainstream medicine practiced in Malaysia with T&CM treatments available as a complement. Currently, T&CM health care is increasingly gaining acceptance among Malaysians not merely for maintaining a healthy body but also for treating ailments. T&CM is becoming the most typical alternative remedy to standard medicine for Chinese, Malay, and Indian communities in Malaysia.<sup>13</sup>

In Malaysia, the integration of T&CM and Western medicine is still in its infancy. In 2007, the first integrated hospital was established in Kepala Batas, Pulau Pinang (acupuncture, Malay massage, and herbal therapy as an adjunct treatment for cancer patients). In 2008, T&CM services were introduced in Putrajaya Hospital, Putrajaya (acupuncture, Malay massage, herbal therapy as an adjunct treatment for cancer patients, and Malay postnatal treatment) and Sultan Ismail Hospital, Johor (acupuncture, Malay massage, and herbal therapy as an adjunct treatment for cancer patients). In 2009, T&CM units were also set up at Sultanah Nur Zahirah Hospital, Kuala Terengganu (acupuncture and Malay massage), Duchess of Kent Hospital in Sandakan, Sabah (acupuncture and Malay massage), and Sarawak General Hospital, Sarawak (acupuncture and Malay massage). In 2010, T&CM units were set up in Port Dickson Hospital, Negeri Sembilan (acupuncture and Malay massage) and Sultanah Bahiyah Hospital in Alor Setar, Kedah (acupuncture and Malay massage). Finally, in 2011, a T&CM unit was set up in Sultanah Hajah Kalsom Hospital, Cameron Highlands, Pahang (Malay massage and acupuncture analgesia in the Department of General Surgery).

In 2001, the Division of T&CM, Ministry of Health, Malaysia, developed the National T&CM policy, and in 2007, developed and published practice guidelines and Good Practice Guidelines in each T&CM clinical practice, such as practice guideline on Islamic medicine, chiropractic, herbal therapy as an adjunct treatment for cancer, Malay postnatal care, acupuncture, and cupping. In 2016, the Malaysian government made another move to put Traditional and Complementary Medicine Act 2016 [Act 775] on gazette on July 22, 2016.

The Division of T&CM, Ministry of Health, Malaysia, defined therapeutic concept as healing in the form of medicine or therapy that has the capability to help in treating a disease or disability. It is used for either physical or mental health, which may be a medication, substance or an activity that supports the healing of one's mental or emotional health. On the other hand, wellness concept refers to modalities that assist in balancing positive health in an individual as exemplified by quality of life and a sense of well-being, as outlined<sup>14</sup> in Table 1.

### Brief Introduction for Education of T&CM in Malaysia

In Malaysia, the education pathway is composed of 4 higher educational sectors, as outlined by the Malaysian Qualifications Framework (MQF). They are the skills, vocational,

**Table 1.** Modalities in Traditional and Complementary Medicine Practices.

Type of Practice	Treatment Concept	
	Therapeutic	Wellness
Traditional Chinese medicine	Herbal medicine Acupuncture Moxibustion Tui-na Cupping	Qigong
Traditional Malay medicine	Herbal medicine Urut Melayu (Malay massage) Indigenous massage Bekam (cupping)	Urut melayu (Malay Massage) Indigenous massage
Islamic medical practice	Islamic medical practice (Ruqyah)	
Traditional Indian medicine	Ayurveda Siddha Unani	Yoga
Homeopathy Complementary medicine	Homeopathy Chiropractic Naturopathy Osteopathy Nutritional therapy Hypnotherapy Psychotherapy Therapeutic massage	Spa therapy Reflexology Aromatherapy Thai massage Swedish massage Balinese/Javanese massage Shiatsu massage Color vibration therapy Crystal healing Reiki Aura metaphysic Raoha Ozone therapy Chelation therapy

technical, and academic sectors. Each sector is supported by lifelong education pathways and is differentiated by learning outcomes, credit hour, and student's learning time. In total, there are 8 levels of qualifications, levels 1 to 3 (Certificate Levels) are Skills Certificates awarded by the "manual" skills, where academic, vocational, and technical certificates are at level 3, and are based on in situ training at the training institutions and contains at least 25% vocational or technical contents. Meanwhile, Diploma and Advanced Diploma, at levels 4 and 5, are higher education, vocational, technical, and skills diploma and encompass capabilities and responsibilities that are wide-ranging and will at the end, lead to a career. Diploma level education balances theory and practice or practical, and stresses on the instillation of values, ethics, and attitudes to enable students use knowledge, comprehension, and practical skills at work; possess study skills in adapting to ideas, processes, and new procedures for career development. Bachelor's degree is at level 6, and prepares students for general employment, entry into postgraduate program, and research as well as highly skilled careers. It enables the individuals to learn responsibilities, which require great autonomy in professional decision making. The bachelor's degree is conferred on individuals who

**Table 2.** Demographic Characteristics of Interviewers.

Variables	Frequency, n	Valid Percentage
Interviewer's job level		
Dean	7	63.64
Head of Department	4	36.36
Others	0	0
Academic institute		
University	4	36.36
University college	2	18.18
College	5	45.46
No. of students		
<50	1	9.09
51-70	2	18.18
71-90	1	9.09
91-110	6	54.55
≥111	1	9.09
Courses offered (n = 14)		
Traditional Chinese medicine	10	71.44
Homeopathy	1	7.14
Chiropractic	1	7.14
Urut melayu	1	7.14
Islamic medicine	0	0
Ayurveda	0	0
Others	1	7.14
Course levels (n = 14)		
Diploma/Foundation	5	35.71
Academic degree	9	64.29
Certificate	0	0
Total graduate credits (n = 14)		
132	5	35.71
203	9	64.29
Others	0	0
Total clinical practice (n = 14)		
6 months	5	35.71
10 months	8	57.14
12 months	1	7.15
Affiliated international university/college		
Yes	9	81.82
No	2	18.18
Affiliated research center		
Yes	3	27.28
No	8	72.72
Affiliated traditional and complementary hospitals		
Yes	3	27.28
No	8	72.72

are able to demonstrate knowledge and comprehension on fundamental principles of a field study, acquired from advanced textbooks; use the knowledge and comprehension through methods that indicate professionalism in employment. Master's degree at level 7 provides for the furtherance of knowledge, skills, and abilities obtained at the bachelor's level. The entrance to master's level is usually based on proven capabilities to pursue postgraduate studies in the selected field. A master's degree is conferred on students who are able to demonstrate continuing and additional knowledge and comprehension above that of the bachelor's degree and have

**Table 3.** Bachelor's and Diploma Educational Programs Developed by Malaysian Qualifications Agency (MQA).

Bachelor's Educational Programs	Diploma Training Programs
Bachelor of Traditional Chinese Medicine (Acupuncture)	Diploma in Malay Massage
Bachelor of Traditional Chinese Medicine	Diploma in Traditional Chinese Medicine (Acupuncture)
Bachelor of Complementary Medicine (Natural Medicine)	Diploma in Natural Medicine
Bachelor of Homeopathy	Diploma in Aromatherapy
Bachelor of Malay Medicine	Diploma in Islamic Medicine
Bachelor of Ayurveda Medicine	Diploma in Reflexology
Bachelor of Chiropractic	

**Table 4.** Traditional and Complementary Medicine Bachelor's Degree Courses and Universities From China, Which Are Recognized by the Malaysian Public Sector Department.

No.	Institution	Course Offered
1	Beijing University of Chinese Medicine	Bachelor of Chinese Medicine
2	Nanjing University of Chinese Medicine	Bachelor of Chinese Medicine (Clinical Medicine)
3	Shanghai University of Traditional Chinese Medicine	Bachelor of Medicine (Traditional Chinese Medicine)

capabilities to develop or use ideas, usually in the context of research; use the knowledge and comprehension to solve problems related to the field of study in new situations and multidisciplinary contexts. The doctorate degree is at level 8 and provides for the further enhancement of knowledge, skills, and abilities to conduct independent research and is conferred on students who are able to show a systematic comprehension and in-depth understanding of a discipline and mastery of skills and research methods related to the field of study; show capabilities to generate, design, implement, and adopt the integral part of research process with scholarly strength; promote the technological, social, and cultural progress in a knowledge-based society in the academic and professional contexts.<sup>15</sup>

For the institutions, the interview findings are shown in Table 2. Fourteen standards and criteria for diploma and bachelor degree have been developed to support the provision of education programs by both the public and private institutions of higher education. To date, there are 7 bachelor's degree programs and 6 programs for diploma offered by these higher education institutions, as outlined in Table 3. In addition, the Malaysian Public Service Department has recognized 3 universities from China to offer bachelor degree programs in Malaysia<sup>16</sup> (Table 4). Currently, the local institutions listed in Table 5 are offering the courses, of which some are collaborated with the aforementioned Chinese universities.

T&CM education in Malaysia has for 50 years been following China's traditional Chinese medicine education curricula. Currently, the Division of T&CM, Ministry of Health,

**Table 5.** Institutions Providing Traditional and Complementary Medicine Courses in Malaysia.

No.	Institution	Course Offered
1	Southern University College, Skudai, Johor	University Foundation for Degree Program (Traditional Chinese Medicine) Bachelor Degree of Traditional Chinese Medicine (Hons)
2	Tunku Abdul Rahman University (Sungai Long Campus)	Bachelor Degree of Traditional Chinese Medicine (Hons)
3	INTI International University College	Bachelor Degree of Traditional Chinese Medicine (Hons)
4	International Medical University	Bachelor of Science (Hons) Chinese Medicine Bachelor of Science (Hons) Chiropractic
5	Management and Science University	Bachelor Degree of Traditional Chinese Medicine (Hons) Diploma in Traditional Chinese Medicine
6	Xiamen University Malaysia Campus	Bachelor Degree of Traditional Chinese Medicine (Hons)
7	International Institute of Management and Technology	Bachelor Degree of Traditional Chinese Medicine (Hons)
8	Lincoln University College	Diploma in Traditional Chinese Medicine
9	Cyberjaya University College of Medical Science	Bachelor of Homeopathy (Hons)
10	Malacca College of Complementary Medicine	Diploma in Natural Medicine
11	Sultan Salahuddin Abdul Aziz Shah Polytechnic	Diploma in Urut Melayu

and Ministry of Higher Education has approved 11 institutions to offer T&CM education. Students may major in Chinese herbal medicine (traditional Chinese medicine), acupuncture, or other T&CM clinical subjects, such as Tui-na, natural medicine, homeopathy, Malay medicine, Malay massage, ayurveda medicine, chiropractic, reflexology, aromatherapy, and Islamic medicine. Generally, clinical practice training programs in China, Taiwan, or Australia include substantial proportion of clinical practice training. Each institution has created a capability-driven curriculum, embedding general skills, and professional training. Generally, bachelor's degree courses have study duration of 15 semesters (3 semesters per year). In a year, there are 2 semesters of 16 weeks' study duration (14 teaching weeks, 1 study week, and 1 examination week), and 1 semester of 9 weeks' study duration (7 teaching weeks, 1 study week, and 1 examination week). The program consists of academic credits ranging from a minimum of 132 credits to a maximum of 203 credits, including traditional Chinese medicine subjects, Western medical science, basic science, professional studies, clinical training, and general studies. Regarding clinical practice training education, each institution has 10 months' duration (6 months in outpatient department in a traditional Chinese medicine clinic, and 4 months in wards). To enhance students' clinical practice training, students attend 4 to 10 months of advanced clinical practice training at local affiliated hospitals or collaborated institutions in China, Taiwan, or Australia. During this clinical practice training program period, students collect medical history, clinical practice reports, and final case presentations or graduate examination. Malay medicine, Malay massage, ayurveda medicine, and Islamic medicine universities or colleges, on the other hand, conduct students' clinical practice training programs in India or other collaborated universities, colleges, or institutions in foreign countries.

## Conclusion

The use of T&CM, a group of diverse medical and health care practices and products that are not considered part of

conventional medicine, has increased in popularity throughout the world, including Malaysia in the past decade.<sup>17</sup> According to World Health Organization reports, traditional medicine continues to be widely used in many Asian countries, even though allopathic medicine is often readily available. In Malaysia, traditional forms of Malay, Chinese, and Indian medicine are used extensively. Likewise, in Latin America, 71% of the population in Chile and 40% of the population in Colombia has used traditional medicine.<sup>18</sup>

T&CM utilization especially in Malaysia shows that people are not only using T&CM for general well-being but also substituting conventional medicine with T&CM, suggesting that it is important to understand why people choose to use T&CM as the mainstream health care system.

We had studied the current status of traditional medicine education in Malaysia. Besides 11 T&CM universities or colleges that provided the information of T&CM courses in their website, we also received the detailed information via interview with deans or head of departments from universities or colleges, and from the Division of T&CM, Ministry of Health. However, we were not able to survey the status of other T&CM in Malaysia.

From our studies, in most of bachelor's degree or diploma courses developed by Malaysia Qualification Agency, and Division of T&CM, each institution's examination has equal graduate academic credits. However, Universiti Tunku Abdul Rahman separated acupuncture subjects from other courses, and Southern University College specially developed a clinical subject in its traditional Chinese medicine courses, which is herbal plants processing. INTI International University & Colleges, on the other hand, collaborated with institutions in China, Taiwan, and Australia for clinical practice training. This indicates that the practical experience of traditional medicine in Malaysia has been considered after graduation. International Medical University collaborated its research with Beijing, Shanghai, Shandong, and Guangzhou Universities of Traditional Chinese Medicine in China, and RMIT in Australia. It has built an Evidence-Based Centre of Excellence in

Complementary Alternative Medicine. This shows regional leadership and exemplary practice in health or medicine education in T&CM fields.<sup>19</sup>

T&CM education in Malaysia is in the midst of systematic reformation. Yet little effort has been made in assessing how students evaluate their training in T&CM, how T&CM education could include modern medical education, or how to make training in T&CM sufficient to meet the public expectations. T&CM and Western medicine in education contends with the challenge of bridging significant differences between 2 medical systems that were historically developed apart. However, their joint use forms an important part of T&CM clinical reality and medical education that should be reflected in Malaysia's T&CM and Western Medicine educational or clinical development.

This study has a limitation of restricted data because the Division of T&CM has limited information and the number of universities/colleges with full information was small. Nevertheless, this study helped us understand the current status of education for T&CM in Malaysia. These results would be the first-stage information for the establishment of a strategy regarding the enhancement of T&CM education in Malaysia.

## Appendix

### Part 1. Current Traditional and Complementary Medicine (T&CM) Education in Your University/College (For universities/colleges)

1. What is your job level?  
A. Dean B. Head of Department C. Others
2. What is the type of your academic institute?  
A. University B. University College C. College
3. How many current students are there in your faculty?  
A. Below 50 B. 51-70 C. 71-90 D. 91-110 E. Over 111
4. What kind of courses does your institute offer?  
A. Traditional Chinese Medicine B. Homeopathy  
C. Chiropractic D. Malay Medicine E. Islamic  
Medicine F. Ayurveda G. Others (Please indicate)
5. What kind of course levels are there in your institute?  
A. Diploma B. Academic degree C. Certificate D. Others  
(Please indicate)
6. What are the total graduate credits in your institute?  
A. 132 B. 203 C. Others
7. How long is your institute's total clinical practice duration?  
A. 6 Months B. 10 Months C. 12 Months
8. Does your institute have any affiliated International/  
Domestic Universities/Colleges?  
A. Yes B. No
9. Does your institute have an affiliated research centre?  
A. Yes B. No
10. Does your institute have affiliated T&CM hospitals?  
A. Yes B. No
11. What subjects in your T&CM courses are special?

### Part 2. Current Status of T&CM in Malaysia (Division of T&CM, Ministry of Health)

1. What is your job level?  
A. Director B. Officer
2. Write up the current status of T&CM in government hospitals.
3. What is the current Malaysia T&CM STRATEGY?
4. How many T&CM practitioners are registered with E-PENGAMAL system?
5. How many T&CM policy and guidelines are published?
6. What is T&CM Acts 2016?

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### Ethical Approval

Ethical approval is not required for this study as no human subjects were involved.

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