

Traditional Chinese Medicine in Singapore: Integrating education, practice, and research in a modern healthcare system

Sarah Ann Phua^{*1}, Ern-Lyn Chloe Sarah Yen^{*1}, Desmond B Teo^{1,2} *MMed (Internal Medicine)*,
Hui Ping Ng^{3,4} *MSc (Acupuncture)*, Shih-Hui Lim^{5,6} *FAMS*

ABSTRACT

Traditional Chinese Medicine (TCM) is gaining prominence within Singapore's predominantly Western medicine (WM) system, reflecting a broader shift towards integrative care. This commentary argues that education is the primary engine of TCM integration, with reforms in professional recognition, competency-based assessments, bilingual curricula, and structured clinical training aligning TCM with contemporary standards and enabling collaboration with WM. These educational advances have catalysed changes in clinical practice, most notably the incorporation of acupuncture into public healthcare institutions, and strengthened research through targeted funding, formal ethics oversight, and TCM-WM partnership.

Despite progress, persistent barriers remain. Limited interprofessional education and communication impede collaborative care and fuel uncertainty about concurrent TCM-WM use. Financial constraints, including restricted subsidies, shape access and care-seeking for TCM. Safety concerns about Chinese proprietary medicines, including risks of adulteration, affect public and professional trust. Foundational differences in diagnostic frameworks and research methodologies complicate evaluation and standardisation, while patient non-disclosure of TCM use fragments care.

Singapore's experience illustrates that safe, evidence-informed TCM integration depends on sustained investment in interprofessional education, equitable financing, robust safety surveillance, and high-quality translational research. Advancing these priorities can support holistic, person-centred care across both systems.

Keywords: education, integrative medicine, interprofessional, patient-centred care, traditional medicine

INTRODUCTION

Complementary medicine refers to a non-mainstream therapeutic approach used alongside Western medi-

cine (WM) to improve outcomes, with acupuncture alone and the full range of Traditional Chinese Medicine (TCM) therapies being the most widely accepted.¹ Reflecting global momentum, the World Health Organization (WHO) Global Traditional Medicine Strategy 2025–2034 sets out principles,² and the WHO publishes benchmarks for TCM and acupuncture on terminology,³ training,⁴ and clinical practice.⁵ Singapore, shaped by Asian and Western traditions, offers a salient case of TCM's adoption within a predominantly WM system. This commentary reviews Singapore's TCM landscape across education, practice, and research, highlighting advances and persistent challenges.

TCM, introduced during the colonial era, is now used by 20% of adults in Singapore, with nearly 40% reporting concurrent use with WM for the same condition (Singapore's National Population Health Survey 2022).¹ This prevalence is comparable to estimates from China (19%),² Taiwan (27%),³ and South Korea (26%).³ Regional approaches to TCM integration vary: South Korea's National Health Insurance covers the full range of traditional medicine treatments,⁴ while Hong Kong SAR has developed a dedicated Chinese Medicine Hospital, provided government-subsidised TCM, integrated TCM-WM services, and supported education and research.⁵ In contrast, Singapore has taken a selective, evidence-based path, focusing on targeted subsidies and the integration of specific modalities, most notably acupuncture, into public healthcare institutions. In Singapore, the TCM Practitioners Board (TCMPB) regulates the registration of TCM practitioners (TCMPs), registration, accreditation of approved training institutions, continuing professional education, and ethical and professional conduct.¹ According to the latest TCMPB annual report, Singapore has 3242 TCMPs and 260 acupuncturists,⁶ with more than half aged 50–69 years.⁷

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¹ Yong Loo Lin School of Medicine, National University of Singapore, Singapore

² Integrated Medicine Programme, Alexandra Hospital, Singapore

³ Singapore Chung Hwa Medical Institution, Singapore

⁴ Singapore College of Traditional Chinese Medicine, Singapore

⁵ National Neuroscience Institute, Singapore

⁶ Duke-NUS Medical School, Singapore

* Joint first authors

Correspondence: Dr Desmond B Teo, Integrated Medicine Programme, Alexandra Hospital, 378 Alexandra Road, Singapore 159964.

Email: desmond_teo@nuhs.edu.sg

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SUCCESSES OF TCM

Education

TCM education has evolved from apprenticeship to recognised academic and professional pathways. Fig. 1 maps key milestones in this development.

Recent reforms aim to meet local needs, raise training standards, and attract younger entrants. Nanyang Technological University (NTU) is transitioning to a 4-year, bilingual Bachelor of Chinese Medicine (BCM), replacing its previous 5-year double-degree programme with Beijing University of Chinese Medicine. The first cohort is expected to graduate in 2028. The curriculum integrates technology-enabled and team-based learning, longitudinal clinical training, and TCM research, with emphasis on ageing and preventive care, aligned with Healthier SG—Singapore's national initiative to shift the healthcare system from treating illnesses to preventive care.⁸ NTU also launched a Master of Science in Chinese Medicine in 2026, expanding annual capacity to about 40 Bachelor's⁹ and 30 Master's graduates¹⁰—up from 30 undergraduates previously.

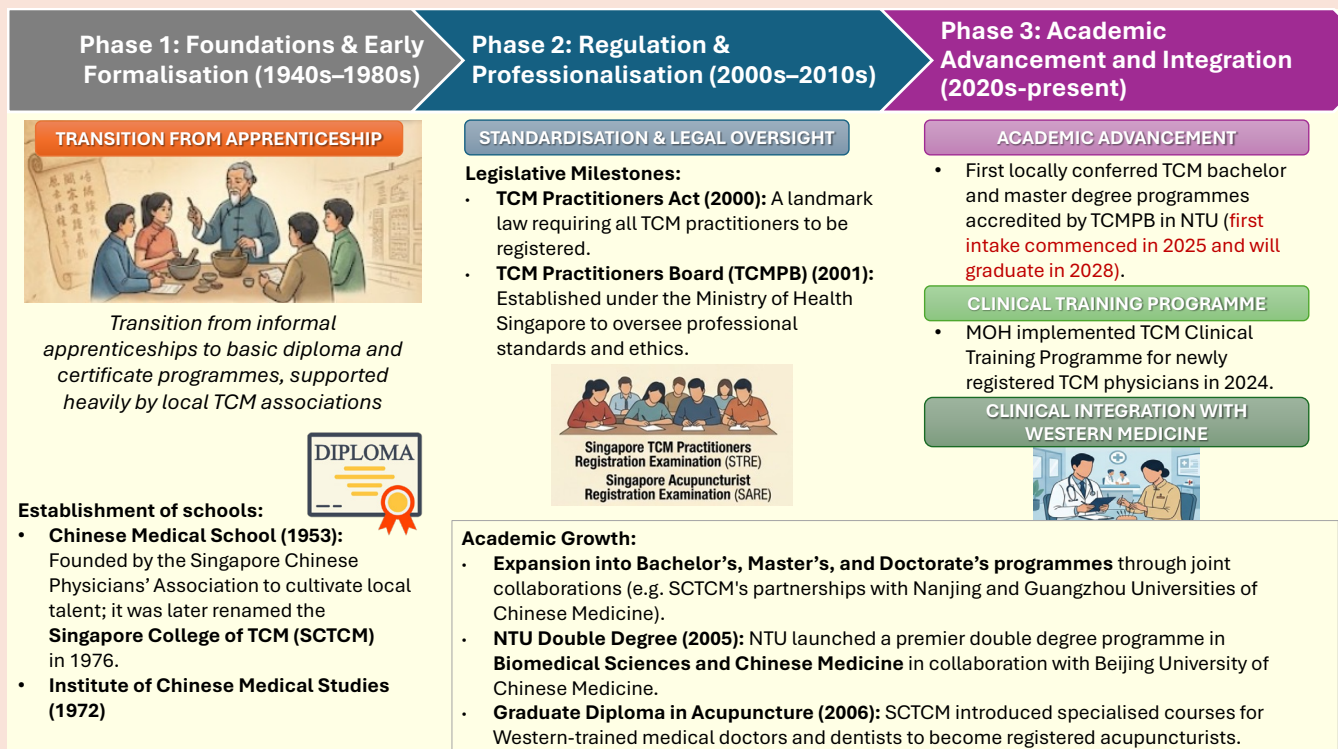
The Singapore TCM Physicians Registration Examination and the Singapore Acupuncturists Registration Examination were revamped in 2025 to emphasise

clinical competency.¹¹ From 2027, both examinations will adopt an Objective Structured Clinical Examination format, aligning TCM assessment with practices familiar to medical, nursing, and allied health training.

In 2024, Singapore's Ministry of Health (MOH) implemented a 1-year TCM clinical training programme that places selected TCMP trainees in 3-month rotations across 4 participating TCM institutions, mirroring housemanship in WM. The programme uses a competency-based framework, Entrustable Professional Activities (EPAs), to progressively entrust trainees with patient care under the supervision of clinical mentors.¹² This structured transition from training to independent practice is intended to raise care standards. MOH also supports TCMPs' professional development and service provision through the TCM Development Grant.¹³

Adoption of bilingual instruction and the EPA framework signals Singapore's commitment to modernising TCM education and aligning it with contemporary standards. Standardised competencies foster an integrated, person-centred workforce. While bilingual instruction may strengthen communication between TCM and WM professionals and prepare graduates for practice and research, reduced emphasis on Mandarin could limit engagement with classical TCM

Fig. 1. Roadmap of TCM education development in Singapore.



MOH: Ministry of Health Singapore; NTU: Nanyang Technological University; SCTCM: Singapore College of TCM; TCM: Traditional Chinese Medicine; TCMPB: TCM Practitioners Board

texts and weaken cultural transmission. Preserving classical literacy and the cultural foundations of TCM should remain a priority within bilingual curricula.

Practice

Singapore's 3 public healthcare clusters—National Healthcare Group Health, National University Health System, and Singapore Health Services (SingHealth)—practise predominantly evidence-based WM. Since 2005, acupuncture, supported by research and broad acceptance, is available in most public health institutions (PHIs). In 2020, the Agency for Care Effectiveness, Singapore's health technology assessment and clinical guidance agency, has recommended subsidies at PHIs for needled acupuncture, with or without electrostimulation, for adults with neck and low back pain.¹⁴ Expanding access reflects growing institutional recognition of acupuncture as an adjunct therapy that delivers clinical value, and signals a more pluralistic model in which treatments are valued for their outcomes rather than their origins.

WM–TCM integration in Singapore is supported by interdisciplinary dialogue. Through events such as the annual Forum on the Use of Evidence-Based TCM in WM Practice, co-organised by SingHealth and the Academy of Chinese Medicine Singapore,¹⁵ practitioners from both fields explore incorporating evidence-based TCM into mainstream care, aiming to build mutual understanding, shape common evidence-based practices, and promote high-value care, collaborative research, and education. This aligns with MOH's sandbox initiative, launched in 2025, which examines how integrative care affects outcomes.¹⁶ Ongoing reviews of the clinical-effectiveness and cost-effectiveness of acupuncture and Chinese proprietary medicines for chronic and non-chronic disease management¹ and further position Singapore's healthcare system to deliver holistic care.

Digital health is reshaping TCM practice. China's experience with TCM internet hospitals,¹⁷ artificial intelligence (AI)-powered language models (e.g. TCMChat, MedChatZH)¹⁸ and disease-specific databases (e.g. TCM2COVID for COVID-19, TCM-ADIP for Alzheimer's disease)¹⁸ illustrates potential gains in access and decision support. In Singapore, teleconsultation, AI-assisted technologies (e.g. TCM Tuina robot), and digital diagnostic tools (e.g. automated pulse analyser, AI-based tongue analysis) are being piloted. These innovations aim to enhance diagnostic accuracy, improve reproducibility, and integrate TCM into modern healthcare through evidence-based data—but they must first secure the Health Sciences Authority's clearance or registration exemption, supported by robust research studies on validation, reliability, and data governance. Rigorous evaluation is essential before routine adoption.

Research

The MOH's TCM Research Grant (TCMRG) funds collaborative studies between TCM organisations and PHIs or academic institutions. For interventional studies, a WM principal investigator is required to ensure rigorous, safe evaluation and credible translation into evidence-based policy and practice.¹⁹ Research is further supported by the Academy of Chinese Medicine, Singapore Institutional Review Board, an independent ethics review committee that applies standards equivalent to those in conventional research, to enhance integrity and public confidence.²⁰

CHALLENGES OF TCM

Education

Opportunities for collaboration between WM and TCM students are limited, creating a barrier to integration. Earlier structured exposure may improve interdisciplinary work. The National University of Singapore's Yong Loo Lin School of Medicine runs a pre-clinical common curriculum for medical, nursing, dentistry, and pharmacy students to cultivate teamwork and interprofessionalism.²¹ Without an equivalent platform linking WM and TCM students, mutual understanding remains limited, risking future silos. From 2027, final-year NTU TCM students will begin clinical rotations at Tan Tock Seng Hospital to observe integrated TCM–WM practice.²² While promising, this initiative currently involves only 1 TCM school, 1 medical school, and 1 hospital. Expanding placements across more PHIs would broaden exposure and better prepare future TCMs.

Limited TCM knowledge among WM practitioners can compromise advice on concurrent TCM use and potential herb–drug interactions.²³ As integration grows, incorporating foundational TCM content into WM undergraduate curricula and continuing professional education and, conversely, introducing WM fundamentals into TCM training would strengthen interdisciplinary understanding and support safer, coordinated care.

Practice

Although acupuncture for neck and low back pain has been subsidised since 2020, MediSave coverage remains limited (capped at SGD200), and patients seeking acupuncture for other indications in PHIs pay private rates. By contrast, MediSave and other government financing schemes (Community Health Assist Scheme, Chronic Disease Management Programme) primarily support WM-based inpatient care and outpatient chronic disease management, respectively, with limited coverage for TCM. Local healthcare providers sometimes attribute adrenal insufficiency or Cushing's syndrome to prior TCM

use because of the perceived steroid-like effects of TCM herbs. Only a limited number of herbs have well-established steroidal activity, and much of the evidence is pre-clinical.²⁴ The addition of medicinal substances such as steroids and heavy metals is also prohibited by the Health Sciences Authority.²⁵ Adulteration of herbal products with exogenous glucocorticoids, falsely marketed as TCM, remains a recurring issue.²⁶

Non-disclosure of TCM use to WM doctors is common and increases the risk of unrecognised potential herb–drug interactions. A local study revealed that 70% of breast cancer patients did not share TCM use with their WM doctors, citing perceived opposition or limited understanding of TCM among WM doctors.²⁷ Such non-disclosure, driven by fear of dismissal or misunderstanding, fragments care. These findings underscore the need for deeper TCM–WM integration to safeguard patient safety and improve outcomes. Equity of access across Singapore's multi-ethnic population also warrants attention. Although TCM is used most by Chinese patients, followed by Malay and Indian patients,²⁸ ethnic differences in TCM access, acceptance, and utilisation remain understudied. Research is needed to identify potential disparities and ensure benefits are equitable.

Research

While the sandbox creates pathways for WM–TCM integration, it also surfaces potential friction. Differences in ontology lead to gaps in understanding. TCM's diagnostic approach centres on syndrome differentiation and patterns of disharmony, whereas scientific explanations for TCM mechanisms remain varied. These divergent frameworks can hinder communication, underscoring the need for mutual literacy.

Methodological differences add complexity. TCM care is often individualised via syndrome differentiation, while WM typically applies disease-specific treatments that are guided by quantitative indicators. WM research prioritises standardisation and precise endpoints, an approach that can struggle to capture the dynamic nature of TCM interventions. Aligning methods and evaluating outcomes across both systems remain challenging.

CONCLUSION

Singapore's healthcare system remains predominantly WM-based, yet TCM, particularly acupuncture, is widely accepted and increasingly relevant for preventive care and chronic disease management. Advances in TCM education, practice, and research have strengthened its place within the national healthcare landscape. As education underpins effective integration, Singapore should prioritise mandatory interprofessional exposure within healthcare

curricula to foster mutual understanding and collaborative practice. System-level measures—including expanded financing for selected evidence-based TCM indications and routine documentation of TCM use during medication reconciliation—can improve accessibility and safety. Together, these strategies support safer, more coordinated, and person-centred care across both systems.

Ethics statement

Not applicable, as no patient data was used.

Declaration

The authors declare that they have no affiliations or financial involvement with any commercial organisation with a direct financial interest in the subject or materials discussed in the manuscript.

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