A Comparative Study of Traditional Chinese and Indian Medicine from the Perspective of International Development: Postprint

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Abstract

Traditional Chinese medicine constitutes an important component of China' s traditional culture, as well as a significant resource in health, economy, science and technology, culture, and ecology. The internationalization of traditional Chinese medicine represents a crucial element in the inheritance, innovation, and development of traditional Chinese medicine. Within the global traditional medicine system, Indian traditional medicine wields considerable influence, and its development status, internationalization strategies, and impact are comparable to those of traditional Chinese medicine. This study adopts an internationalization development perspective to conduct a comparative analysis of Chinese and Indian traditional medicine across seven dimensions: health services, health human resources, traditional pharmaceutical production capacity, health system financial allocation and medical insurance policies, health governance, product export scale and target markets, and internationalization development and impact. The objective is to draw upon the successful experiences of Indian traditional medicine' s internationalization, propose considerations for the internationalization development of traditional Chinese medicine, actively promote the internationalization of traditional Chinese medicine, and contribute significantly to enhancing overseas cultural recognition of traditional Chinese medicine and advancing its participation in global health governance.

Full Text

Preamble

Comparative Study of Traditional Chinese Medicine and Indian Traditional Medicine from the Perspective of International Development

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Abstract

Traditional Chinese Medicine (TCM) constitutes an important component of China' s traditional culture and represents a vital resource for health, economy, technology, culture, and ecology in China. The international development of TCM is essential for its inheritance, innovation, and advancement. Within the global traditional medicine landscape, Indian Traditional Medicine holds considerable influence, offering significant comparability with TCM in terms of development status, internationalization strategies, and global impact. This paper compares TCM and Indian Traditional Medicine across seven dimensions from an international development perspective: health service delivery, health workforce, traditional drug production capacity, health system financing and insurance policies, health governance, product export scale and target markets, and international development influence. The aim is to draw lessons from India' s successful internationalization experiences and provide insights for advancing TCM' s global development, thereby strengthening overseas cultural recognition of TCM and promoting its participation in global health governance.

Keywords: Medicine, Chinese Traditional; Medicine, Ayurvedic; Traditional Chinese Medicine; International development; Comparative study

Introduction

Traditional medicine differs fundamentally from the mainstream modern medical system. The World Health Organization (WHO) defines it as encompassing diverse health practices, approaches, knowledge, and beliefs incorporating plant-, animal-, and mineral-based medicines, spiritual therapies, manual techniques, and exercises, applied singularly or in combination to maintain well-being, as well as to treat, diagnose, or prevent illnesses [1]. Some countries refer to traditional or unconventional medicine as complementary medicine. The vast majority of nations possess traditional and complementary medicine systems, and demand for such services continues to rise [1]. Chinese, Indian, and Arabic traditional medicine are recognized as the world' s three major traditional medicine systems [2]. Traditional Chinese Medicine includes the medical practices of all Chinese ethnic groups, such as Han (Chinese) medicine, Tibetan medicine, and

Mongolian medicine. Han (Chinese) medicine exerts the greatest influence in China, benefiting from a large population, long historical tradition, and sophisticated classical philosophy, which have contributed to a more complete theoretical framework, richer clinical practice, and relatively early maturation of its disciplinary system, consistently maintaining a leading position [3]. Today, "Chinese medicine" commonly represents Traditional Chinese Medicine. This paper adopts the definition of TCM from the Law of the People' s Republic of China on Traditional Chinese Medicine, which encompasses both Han and ethnic minority medicines, representing the collective term for medicines of all Chinese ethnic groups and constituting a unique medical system with a long historical tradition and distinctive theories and technical methods [4].

Indian Traditional Medicine holds global influence and includes Ayurveda, Unani, Siddha, Naturopathy, Homoeopathy, Yoga, and Sowa Rigpa [5]. In recent years, India has actively expanded its international influence in traditional medicine and accelerated its global promotion. In March 2022, India' s Ministry of AYUSH signed a host country agreement with WHO, establishing WHO' s first Global Centre for Traditional Medicine in India—a major diplomatic achievement that positions India to assume leadership in global health governance related to traditional medicine. India' s traditional medicine development status, internationalization strategies, and influence offer substantial comparability with TCM [6]. This paper compares Chinese and Indian traditional medicine from an international development perspective across seven dimensions: health service delivery, health workforce, traditional drug production capacity, health system financing and insurance policies, health governance, product export scale and target markets, and international development influence, concluding with reflections on TCM' s international development.

1.1 Health Service Delivery

According to India' s *Ayush in India 2021* annual report [7], as of April 1, 2021, India had 3,844 traditional medicine hospitals (0.0276 per 10,000 population) with 60,943 beds (0.4375 per 10,000 population). Detailed distribution is shown in Table 1 . According to the *National TCM Statistics Compilation 1999-2021* [8], China had 77,298 TCM medical institutions in 2021 (0.5324 per 10,000 population) with 1,199,110 beds (8.2583 per 10,000 population), including 5,715 TCM hospitals (0.0394 per 10,000 population). Detailed distribution is shown in Table 2 .

1.2 Health Human Resources

1.2.1 Practitioner Distribution As of January 1, 2021, India had 755,780 registered traditional medicine practitioners (5.4256 per 10,000 population), as

shown in Table 3 [7]. In 2021, China had 1,376,324 health technicians in TCM medical institutions (9.4788 per 10,000 population), as shown in Table 4 [8].

1.2.2 Undergraduate and Specialized Education As of April 1, 2021, India had 779 traditional medicine undergraduate institutions (0.0056 per 10,000 population) with an enrollment capacity of 56,484 students (0.4055 per 10,000 population), as shown in Table 5 [7]. In 2021, China had 44 higher TCM institutions, 151 higher Western medicine institutions offering TCM programs, and 259 higher non-medical institutions offering TCM programs [8], totaling 454 institutions (0.0031 per 10,000 population) providing TCM undergraduate and specialized education with a total enrollment capacity of 334,007 students (2.3003 per 10,000 population), as shown in Tables 6 and 7 .

1.3 Traditional Drug Production Capacity

1.3.1 Pharmacy Distribution As of April 1, 2021, India had 36,848 traditional medicine pharmacies (0.2645 per 10,000 population), with distribution shown in Table 8 [7]. According to the *Annual Statistical Data of Drug Supervision and Administration (2021)*, China had 609,681 traditional medicine pharmacies (4.1989 per 10,000 population) [9].

1.3.2 Enterprise Distribution As of April 1, 2021, India had 8,648 enterprises engaged in traditional drug manufacturing (0.0621 per 10,000 population), as shown in Table 9 [7]. In 2021, China had 8,636 enterprises engaged in traditional drug manufacturing (0.0595 per 10,000 population), as shown in Table 10 [9].

1.4 Health System Funding and Insurance Policies

In the 2020-2021 fiscal year, India' s Ministry of AYUSH received a special budget allocation of $2.797 billion ($2.0079 per capita), a 25% increase from the previous fiscal year' s $2.237 billion. The Ministry utilized $2.760 billion in 2020-2021 [7], covering budget allocations for central and statutory bodies, autonomous institutions under the Ministry, and various central sector and centrally sponsored schemes. In India' s health system, public health services are funded by local governments or through direct patient payments. For primary care and emergency services, portions are covered by local health departments while the remainder is paid by patients [10], with traditional medicine service costs covered by public and private health insurance [11].

In 2021, China' s TCM medical institutions received $10.822 billion in government allocations ($7.4532 per capita), accounting for 0.32% of national fiscal expenditure, of which $8.431 billion was for medical and health purposes,

representing 0.25% of national fiscal expenditure [8]. China' s health system financing comprises four main sources: government budgets, social insurance, private insurance, and out-of-pocket payments. China has established a basic medical insurance system for urban and rural residents to improve health service accessibility and equity. Urban employee basic medical insurance is jointly contributed by employers and employees; uninsured individuals may voluntarily participate in urban resident basic medical insurance, while rural residents voluntarily enroll in the New Rural Cooperative Medical Scheme, with contributions from both enrollees and the government [12]. In 2016, the New Rural Cooperative Medical Scheme and urban resident basic medical insurance were integrated into a unified basic medical insurance system for urban and rural residents. Both government and commercial insurance (including state-owned and private companies) cover TCM medical services, partially covering acupuncture, herbal medicine, and bone-setting therapy costs [11].

1.5 Health Governance

In March 1995, India established the Department of Indian Systems of Medicine and Homoeopathy (ISM&H) under the Ministry of Health and Family Welfare (MOHFW) [13]. In 2003, this became the Department of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy (AYUSH). In 2014, it was upgraded to the Ministry of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy, known as the Ministry of AYUSH [14], responsible for policy formulation, planning, and implementation of programs. Sowa Rigpa was recently incorporated into AYUSH. The Ministry has been dedicated to global promotion and dissemination of Ayurveda through bilateral cooperation memoranda, establishing AYUSH academic chairs in foreign universities and research institutes, and opening AYUSH information cells in Indian missions/ICCR cultural centers to disseminate cultural information about AYUSH [15].

China' s National Administration of Traditional Chinese Medicine, established in 1988, is the national administrative body overseeing TCM. It is responsible for formulating strategies, plans, policies, and standards for TCM and ethnic medicine development; supervising and coordinating integrated Chinese and Western medicine in medical and research institutions; and organizing international promotion, application, and dissemination of TCM [16]. In recent years, China has vigorously developed TCM, issuing a series of planning and policy documents.

In February 2016, the State Council issued the *Outline of the Strategic Plan for the Development of Traditional Chinese Medicine (2016-2030)*, elevating TCM development to a national strategic priority. In December 2016, the State Council Information Office published the white paper *Traditional Chinese Medicine in China*, introducing TCM' s inheritance and development. In the same month, the *Law of the People' s Republic of China on Traditional Chinese Medicine* was

enacted to safeguard and promote TCM development [17]. In December 2021, the National Administration of Traditional Chinese Medicine and the Office of the Leading Group for the Belt and Road Initiative jointly issued the *Development Plan for High-Quality Integration of Traditional Chinese Medicine into the Belt and Road Initiative (2021-2025)*. In March 2022, the General Office of the State Council released the *14th Five-Year Plan for TCM Development*, gradually forming a relatively complete TCM policy framework.

1.6 Product Export Scale and Target Markets

India's traditional medicine product exports increased from $541 million in 2017 to $826 million in 2021, representing a 53% growth rate. In 2020-2021, India exported traditional medicine products to 186 countries, with major markets including the United States ($322 million), Germany ($58 million), South Korea ($33 million), China ($30 million), France ($26 million), and Italy ($26 million) [7].

In 2021, China' s traditional Chinese medicine product exports totaled $5.001 billion, a year-on-year increase of 16.52%. Plant extracts accounted for over 60% of TCM product exports, with export volume of 105,200 tons valued at $3.029 billion, up 23.9%. Chinese medicinal materials and decoction pieces exports reached $1.353 billion, up 2.3%, with export volume of 232,500 tons. Prepared Chinese medicine exports were $307 million, up 17.9%, with export volume of 11,700 tons. Health product exports totaled $312 million, up 18.2%. The United States, Japan, the European Union, and ASEAN are China' s primary TCM product export markets [18]. Figure 1 [Figure 1: see original paper] compares the total export values of traditional medicine products between China and India from 2017 to 2021 [7,18-19].

1.7 International Development and Influence

Ayurveda is recognized by WHO as a major international traditional medicine system. The Indian government and state governments provide financial support to traditional medicine, helping its diagnostic methods and treatment approaches evolve with social development. India' s internationalization concepts, strategies, and investments are summarized in Table 11 [20-22]. The Ministry of AYUSH' s "Traditional Medicine: Delhi Declaration" was adopted as Resolution SEA/RC67/R3 by WHO' s South-East Asia Regional Committee and has been embraced by all countries in the region [15]. Yoga, a distinctive feature of Indian traditional medicine, has enhanced the global influence of traditional medicine [23]. In December 2014, the United Nations officially designated June 21 as International Yoga Day [24]. In recent years, India' s medical tourism industry, centered on yoga, has been growing at 15% annually, amplifying the dissemination of Indian traditional medicine. In November 2020, WHO decided

to locate its Global Centre for Traditional Medicine in India, which was realized in March 2022 to promote research, training, and promotion of traditional medicine—a major health diplomacy achievement for India.

TCM' s international development concepts, strategies, and investments are also summarized in Table 11. TCM has now spread to over 190 countries and regions worldwide, with more than 80 cooperation agreements signed with foreign governments, regional organizations, and international bodies, forming an important area of cooperation between China and ASEAN, the EU, the African Union, CELAC, BRICS countries, and Shanghai Cooperation Organization member states [25]. Acupuncture, an essential component of TCM, was inscribed on UNESCO' s Representative List of the Intangible Cultural Heritage of Humanity in 2010. As of 2019, 103 WHO member states have approved acupuncture use [26], 29 have formulated laws and regulations on traditional medicine, and 18 have included acupuncture in their medical insurance systems [27]. Chinese scientist Tu Youyou was awarded the Nobel Prize in Physiology or Medicine in October 2015 for discovering artemisinin, advancing TCM' s global development [28]. In November 2018, the 15th World Congress of Traditional Chinese Medicine and the Belt and Road TCM Culture Week issued the *Rome Declaration*, designating October 11 as "World Traditional Chinese Medicine Day" to promote high-level international TCM development. As of June 2023, the ISO/TC 249 Technical Committee on Traditional Chinese Medicine has officially published 95 international standards for TCM, with 31 additional standards under development [29], demonstrating substantial international recognition.

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2 Summary Comparison of Chinese and Indian Traditional Medicine

In 2021, China surpassed India in the number of traditional medicine hospitals, hospital beds, practitioners, and undergraduate/specialized education enrollment. China had fewer undergraduate/specialized education institutions than India but enrolled more students. China had more traditional medicine pharmacies but slightly fewer traditional drug manufacturing enterprises (though numbers were similar). China' s government special allocations for traditional medicine far exceeded India' s. India' s health service payment methods involve public and private health insurance, while China' s include government and commercial insurance. India' s governing body is the Ministry of AYUSH, while China' s is the National Administration of Traditional Chinese Medicine. China' s TCM product export value was $4.175 billion higher than India' s traditional medicine product exports. According to UNFPA' s *State of World Population Report 2021*, China' s population was approximately 1.452 billion and India' s about 1.393 billion in 2021 [30], making population differences negligible for this comparison.

Comparing the international development concepts, strategies, and investments

of both countries reveals both similarities and differences. The two nations focus on different angles in their internationalization concepts: India positions Ayurveda and yoga as national soft power, enhancing its traditional medicine' s international influence, while China emphasizes equal importance for Chinese and Western medicine and actively promotes building a global community of health for all. In terms of strategies, India focuses primarily on international promotion, recognition, exchange and cooperation, market development, and education for its traditional medicine, whereas China concentrates on global health governance cooperation, medical and health cooperation, scientific and technological innovation cooperation, international trade cooperation, health industry cooperation, educational cooperation, and cultural exchange cooperation. Both countries address international exchange and cooperation, trade markets, and education, but India places greater emphasis on promotion and recognition, while China focuses more on global health governance, medical care, and technological innovation.

Overall, China' s traditional medicine exceeds India' s in health service delivery, health workforce, traditional drug production capacity, health system funding, and product exports. However, India' s traditional medicine enjoys greater international influence and acceptance. Yoga has been promoted worldwide, and WHO has fully recognized Indian traditional medicine by establishing its Global Centre in India (Table 12). Therefore, it is essential to learn from India' s successful internationalization experiences and explore strategies with Chinese characteristics to maximize TCM' s value as a health, economic, technological, cultural, and ecological resource, thereby powerfully advancing Healthy China construction [31].

3.1 Position TCM as a Key Instrument for China' s Global Health Governance and Bilateral/Multilateral Health Diplomacy

India has successfully positioned Ayurveda and yoga as Indian soft power to achieve health diplomacy. To date, India' s Ministry of AYUSH has cooperated with over 50 countries, promoting Ayurveda, yoga, and other AYUSH systems through intergovernmental memoranda of understanding, research collaborations, establishing AYUSH academic chairs in foreign universities, setting up AYUSH hospitals or research institutes, creating herbal gardens, organizing expert exchanges, and hosting seminars [20]. WHO's Global Centre for Traditional Medicine in India represents a major milestone in traditional medicine history and a significant health diplomacy achievement. Health diplomacy, as an important component of national foreign policy, helps build positive international images and enhance national soft power, generating multifaceted impacts that cannot be overlooked. India has effectively leveraged traditional medicine for global health diplomacy, while TCM, as a unique Chinese health resource with dual medical and cultural attributes, constitutes an important part of China' s health diplomacy [32].

Supported by the Belt and Road Initiative, TCM has established over 30 overseas TCM centers and multiple TCM Confucius Institutes in participating countries, cultivating local talent. Building on this foundation, China should further expand TCM promotion and publicity, establishing international TCM cultural centers to enhance understanding, awareness, and recognition of TCM in Belt and Road countries and regions [17]. China should strengthen foreign health cooperation through TCM expos, international TCM conferences, and other platforms to facilitate closer communication with foreign medical institutions [33]. Additionally, China should dispatch TCM foreign aid medical teams, donate TCM medical supplies, construct TCM hospitals and health institutions, and train TCM health personnel to provide financial and technical assistance to developing countries [34]. Through education, cultural promotion, health cooperation, and medical aid, TCM should be positioned as a key instrument for China to advance global health governance and conduct bilateral and multilateral health diplomacy.

3.2 Align with International Standards and Promote International Compliance of TCM Medical Institutions and Enterprises

Although India' s traditional medicine product export value was lower than China' s TCM product exports in 2021, India' s traditional medicine enjoys greater international influence. Promoting AYUSH products and expanding AYUSH international markets constitute important components of India' s traditional medicine internationalization strategy. India is committed to standardizing traditional medicine products: the Ministry of AYUSH established a Drug Policy Section (DPS) to conduct technical reviews of WHO Good Manufacturing Practice/Certificate of Pharmaceutical Product (WHO-GMP/CoPP) applications for traditional medicine products and conduct joint inspections of manufacturing units and laboratories. To date, 21 Ayurvedic drug manufacturing units in India have obtained WHO-GMP/CoPP certification [31]. Standardization is key to traditional medicine product exports.

TCM' s theoretical system differs from Western medicine, making it difficult for foreign medical institutions to recognize. Inconsistent standards between China and other countries represent a major challenge for TCM internationalization. TCM internationalization requires enterprises and products that can align with international standards, widely pursuing international registration and certification. Products should be registered and marketed through various channels such as dietary supplements, traditional herbal medicines, over-the-counter drugs, and prescription drugs, then promoted through dedicated sales channels or partnerships with local distributors. China should support medical institutions and enterprises in building TCM quality standard research platforms and testing technology platforms according to international standards, support enterprises in dynamic GMP construction research, and support cooperation with foreign authoritative research institutions to establish research,

testing, and registration bodies. Actively promoting international compliance of TCM medical institutions and enterprises will enable more TCM enterprises to "go global," expanding the international TCM market and enhancing TCM' s global competitiveness and influence [35].

3.3 Strengthen Foreign Education and Training to Cultivate More TCM Talent Globally

India' s Ministry of AYUSH promotes Indian traditional medicine globally through academic exchange cooperation memoranda with foreign universities and institutions in Malaysia, Nepal, Bangladesh, Hungary, and other countries, and has established AYUSH academic chairs in Australia, Russia, Mauritius, and other nations [36]. Additionally, a fixed number of places are allocated annually for international students to study Indian traditional medicine, with scholarships covering tuition, round-trip airfare, and stipends. Currently, 260 students from 32 countries are receiving AYUSH education under the AYUSH scholarship program at various institutions [20]. Foreign education and training are essential pathways for traditional medicine internationalization, enabling global promotion and cultivating specialized talent.

The *Traditional Chinese Medicine in China* white paper (2016) indicates that over 30 countries and regions have established hundreds of TCM education institutions, primarily in Asia and Europe [37]. However, due to differences in cultural traditions, lifestyles, disease prevention and treatment concepts, medical insurance systems, and legal frameworks, most countries have not integrated traditional medicine into formal medical education systems, resulting in TCM education focusing primarily on short-term, non-degree training programs [38]. TCM internationalization urgently requires promoting and improving TCM international education standards, cultivating interdisciplinary talent with TCM expertise and international promotion experience, strengthening exchanges and cooperation with foreign universities and governments, actively developing foreign TCM education and training, and gradually building a TCM education system that strongly supports internationalization and innovative talent cultivation [39], thereby training more TCM talent worldwide.

3.4 Promote TCM Using Internationally Accessible Language and Paradigms to Enhance Global Acceptance

India has leveraged the yoga craze to promote Indian traditional medicine globally, improving international acceptance of Indian culture and boosting its traditional medicine service trade industry. English serves as one of India' s official languages, giving India a communication advantage in promoting traditional medicine internationally. India also uses other countries' common languages to facilitate traditional medicine dissemination.

In 2021, India' s Ministry of Health issued guidelines on immunity-boosting self-care principles and preventive health measures, translating them into nine foreign languages for worldwide distribution [31]. TCM internationalization serves not only the discipline' s development but also bears the responsibility of disseminating traditional Chinese culture. However, TCM' s dual medical and cultural attributes have limited the spread of its medical methods, drug certification, and academic recognition, resulting in relatively low overall international acceptance [40]. Therefore, it is recommended to promote TCM using internationally common languages, constructing a standardized international language system for TCM and employing paradigms with high international acceptance to further disseminate TCM.

India has vigorously developed its traditional medicine medical tourism industry, establishing a National Medical and Wellness Tourism Board and providing interest subsidies to investors through the Ministry of AYUSH to encourage establishment of international-standard AYUSH hospital systems, thereby promoting AYUSH-based medical tourism—Ayurveda and yoga being particularly popular [31]. TCM's health preservation concepts emphasizing prevention, recuperation, and wellness align well with current health perspectives. It is recommended to vigorously promote TCM' s "preventive treatment" philosophy, enhance public awareness and acceptance, and develop an eco-health tourism industry system featuring acupuncture, qigong, tai chi, massage, dietary therapy, and herbal spas. Drawing from India' s medical tourism service model, China should develop diverse forms of Traditional Chinese Medicine medical service trade [6] to improve international acceptance of TCM.

3.5 Adhere to the Medicine-Leading-Pharmacy Model to Accelerate TCM Internationalization

India actively promotes AYUSH products in international markets, with traditional medicine product exports reaching $826 million in 2021. Traditional medicine product exports cannot be separated from theoretical guidance. While internationally promoting AYUSH products, India also vigorously promotes and strengthens recognition of AYUSH medical systems in other countries. The medicine-leading-pharmacy model represents an important pathway for traditional medicine product exports. China' s exported TCM products include prepared Chinese medicines, plant extracts, Chinese medicinal materials and decoction pieces, and health products according to customs statistics [41]. Policy access remains the biggest barrier to TCM product exports. According to incomplete statistics, the following Chinese patent medicine products have been registered in the EU, Canada, and other countries: Huatuo Zaizao Pill (Russia), Di' ao Xinxuekang Capsule (Netherlands), Tongxinluo Capsule (Vietnam), Antiviral Oral Liquid (Canada), Danshen Capsule (Netherlands), Danning Tablet (Canada), Fanluohua Cold and Flu Relief Granules (Banlangen product) (UK), Yufeng Ningxin Tablet (Netherlands), Foci Concentrated Danggui Pill (Sweden),

Lemai Granules (Canada) [42]. However, most Chinese patent medicines can only be exported as "dietary supplements" or "food" [43]. Currently exported Chinese medicinal materials and decoction pieces struggle to meet clinical needs in foreign TCM medical institutions, resulting in situations where medicine is unavailable or insufficient despite medical services being provided [44]. Without TCM theoretical guidance, improper dosage of Chinese medicines in foreign markets may cause side effects, affecting TCM efficacy and hindering internationalization. Chinese medicine and herbal products complement each other and should not be separated. Therefore, adhering to the medicine-leading-pharmacy model is crucial for TCM' s long-term internationalization development. In the pharmaceutical industry chain, this model uses medical technology, equipment, and talent as forerunners to expand drug production and sales, sustaining the entire industry' s growth [45]. TCM is a vital force driving international demand for Chinese medicines, making the medicine-leading-pharmacy model an effective approach for promoting TCM product registration, certification, and exports, thereby advancing TCM industry internationalization.

Conclusion

This paper compared Chinese and Indian traditional medicine across seven dimensions: health service delivery, health workforce, traditional drug production capacity, health system financing and insurance policies, health governance, product export scale and target markets, and international status and influence. India lags behind China in hospital numbers, bed numbers, practitioners, undergraduate/specialized education enrollment, pharmacy numbers, health system funding, and traditional medicine product exports—particularly with 7.8065 fewer beds, 4.0532 fewer practitioners, 3.9344 fewer pharmacies per 10,000 population, $5.4453 less in per capita health system funding, and $4.175 billion less in product export value. However, Indian traditional medicine holds an important position in the global traditional medicine system with more profound international influence than TCM. The reason lies in India' s greater emphasis on promoting and publicizing the AYUSH medical system during internationalization. For example, India requires its Ministry of External Affairs and all overseas missions to celebrate Ayurveda Day through various activities such as public lectures and seminars, and the Ministry of AYUSH provides annual technical support to Indian missions abroad for International Yoga Day celebrations [31], thereby achieving health diplomacy through traditional medicine. International standardization, foreign education and training, use of internationally accessible languages and paradigms, vigorous development of medical tourism, and promotion of traditional medicine product exports through the medicine-leading-pharmacy model are also important contents and challenges for traditional medicine internationalization. Therefore, China should reference India' s development models and pathways, giving equal importance to these aspects in TCM development.

TCM is a treasure of ancient Chinese science and a key to unlocking the Chinese civilization' s repository [46]. In China' s participation in global health governance, TCM plays an important role by providing multi-dimensional medical models and treatment methods. TCM internationalization holds tremendous value for health diplomacy. China should actively promote TCM internationalization to deepen overseas cultural recognition of TCM and advance its participation in global health governance.

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