



# A comparative study of the traditional medicine systems of South Korea and Taiwan: Focus on administration, education and license

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## ABSTRACT

**Background:** Traditional medicine (TM) is widely used in South Korea and Taiwan, and both societies have similar systems for the management of TM. This study aimed to compare the TM systems in South Korea and Taiwan.

**Methods:** We searched for studies on the TM systems and collected statistical data from the websites of relevant government agencies in both countries. Interviews were conducted with experts on TM and officials from government agencies. The two TM systems were described and examined in terms of policies, resources, utilization, licensing, and educational systems.

**Results:** Both South Korea and Taiwan have a dual system that separates the administration, licensing and educational systems between TM and Western Medicine (WM), and the TM systems are well established and highly standardized. Comparing with South Korea, however, Taiwan has a more flexible dual medical system in which education courses for producing dual licensure are provided. Additionally, in the system in Taiwan, dual license holders can use both TM and WM methods without limitations and WM doctors can apply acupuncture under some circumstances. Because of the strict dual medical system in South Korea, TM and WM conflict with each other on most health issues.

**Conclusion:** Both South Korea and Taiwan have the advantages of preserving TM, as TM and WM are systemically independent and together provide a more holistic approach. The institutionalization of TM in South Korea and Taiwan may be a good reference for countries considering modernization of their TM.

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## 1. Introduction

Every country has a different system of regulation for TM<sup>1-3</sup> due to the differences in their resources,<sup>1</sup> institutions,<sup>1</sup> history and culture.<sup>3</sup> Campbell<sup>4</sup> explained the differences of these systems as being defined by the policies of society, as there are discrepancies in the systematic and structured frameworks, such as political economic systems, administrative organizations, laws, and policy implementation mechanisms of the nation, which form during the process of social evolution.

Both South Korea and Taiwan have similar management systems for TM, including the therapeutic methods of acupuncture, moxibustion, cupping, herbal medicines, and manual therapies.<sup>3</sup> The two societies have exclusive dual medical track systems for TM and WM.<sup>2</sup> TM services and herbal medicines are controlled at the government level and are reimbursed by the national health insurance.

The incorporation of TM into the healthcare system is a common phenomenon, particularly in East Asian countries, such as China, North Korea, Vietnam, Taiwan and Japan. Among these countries, South Korea and Taiwan are unique in that they have adopted a dual medical system and operate it exclusively within the scope of their licensing systems.<sup>5</sup> Focusing on the organizational collaboration between TM and WM, Shim defined Japan as a subjugation system, China as an identification system, and South Korea and Taiwan as equalization systems and explained that only South

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**Table 1**  
Items and contents used in the comparative analysis of TM between Taiwan and South Korea.

Items	Comparison contents
Schemes of the national health care systems	<ul style="list-style-type: none"> <li>○ Brief outline of the health care systems</li> <li>○ Health care indicators</li> </ul>
Framework of TM	<ul style="list-style-type: none"> <li>○ Comparison of the administrative systems</li> <li>○ Comparison of the current statuses</li> </ul>
Systems of TM	<ul style="list-style-type: none"> <li>○ Comparison of the educational systems</li> <li>○ Comparison of the licensing systems</li> </ul>

TM, traditional medicine.

Korea and Taiwan have equal/dual medical systems for TM and WM.<sup>2</sup> Therefore, comparing and analyzing the systems of South Korea and Taiwan would provide a good example for countries seeking to integrate TM into their healthcare system. Previous studies were conducted to compare the TM systems of several East Asian countries<sup>3</sup> and/or medical practices between South Korea and Taiwan.<sup>6</sup> However, no in-depth comparative analysis of TM systems between South Korea and Taiwan has been conducted.

This research aimed to collect data regarding the current status of policies and resources, formal licensing and educational systems and to analyze the similarities and differences between the systems of the two societies.

## 2. Methods

We compared the administrative systems, resources, and organizational systems of TM in South Korea and Taiwan to analyze the institutional differences between the two countries. Specifically, we compared the administrative system of TM with the current status of its resources and utilization. Additionally, we compared the educational and licensing systems of TM in these two countries. Finally, we deduced implications for improving the systems based on an analysis of the similarities and differences between the educational and licensing systems. The data used for the institutional comparison were obtained through literature and website searches and face to face interviews. We collected the data from 2017.

The analysis was conducted based on the comparison of items and content (Table 1).

## 3. Results

### 3.1. Administration structure

The administrative organizations that manage traditional medicine are the Korean Medicine Policy and Ministry of Health and Welfare in South Korea, and Chinese Medicine department and Ministry of Health and Welfare in Taiwan. There are four departments in the Chinese Medicine department, which is larger than the Bureau of traditional Korean Medicine (Table 2).

Both departments are responsible for establishing policies related to traditional medicines, supporting research and development, cultivating human resources, and managing the distribution of herbal medicines.

The Chinese Medicine department is also in charge of the authorization and management of herbal medicine products, but in South Korea, the Ministry of Food and Drug Safety (FDA) is in charge of the approval and management of herbal medicine products.

### 3.2. Medical resources and utilization

In 2017, there were only five hospitals in Taiwan, and this number has been decreasing every year. In Taiwan, the number of TM doctors (6685) is one-seventh of the number of WM doctors (46,311), while the number of TM doctors in Korea is one-fifth of

that of WM doctors (TM-24,560, WM-121,571). The TM outpatient medical expenses (23,933 million TWD) in 2017 were one-24th of the WM outpatient medical expenses (577,461 million TWD) in Taiwan, whereas they were one-19th of the WM outpatient medical expenses (TM-2,541,202 million KRW, WM-47,654,799 million KRW) in South Korea. TM expenses are 3.7% of the total medical expenses in Taiwan, which was similar to 3.6% of the total medical expenses in South Korea. Additionally, the share of outpatient medical expenses was different between Taiwan and South Korea. The ratio of medical examination costs between these countries was similar (47.1% for TM in Taiwan and 34.6% for TM in South Korea). However, TM in Taiwan represented 19.4% of the treatment and examination costs and herbal medicine represented 33.4% of the total cost, but TM in Korea represented 54.3% of the treatment and examination costs and herbal medicine only represented 1.8% of the total cost. The number of outpatient visits to TM clinics in Taiwan and South Korea were similar, both approximately one-seventh of WM outpatient visits (Table 3).

### 3.3. Educational system

Twelve universities have TM faculty in Korea, including one specialized graduate school, while there are four universities in Taiwan that have approximately half the number of students than in Korean universities. In Taiwan, the TM educational system consists of two different courses: the TM single major/license program, which takes 7 years to complete, and the double (TM and WM) major/license program, which takes 8 years to complete. There is also a post-baccalaureate program that offers five years of TM education. This program is one year longer than the comparable university programs in Taiwan and the graduate school programs in Korea. One of the most unique features of the Taiwanese educational curriculum is the dual major course, which allows the students to obtain both a TM and a WM doctor's license. The educational curriculum for the dual license is run by the two TM universities in Taiwan (Table 4).

### 3.4. License system

The TM licensing systems are specified by law in both countries. Unlike South Korea, among the WM doctors who graduated from medical school before 2008, those who received a TM education and the WM doctors who graduated from the dual major university program are eligible to take the TM license examination in Taiwan. In both South Korea and Taiwan, western medical examinations, such as blood tests, can be performed by TM practitioners, although there are limits, but TM doctors are not allowed to practice WM unless they have dual licenses. A TM doctor with dual licenses in Korea is able to practice and offer both TM and WM in two different clinics simultaneously, enabling them to make health insurance claims within both medical scopes of practice. On the other hand, doctors in Taiwan can only participate in one practice, either a TM or WM clinical practice, and doctors in either practice can make insurance claims. As TM doctors are not allowed to practice WM without dual licenses in South Korea, WM doctors are not eligible to practice TM in South Korea unless they have a dual license. In Taiwan, WM doctors can practice acupuncture subsequent to a designated training program, but they cannot make insurance claims for it (Table 5).

## 4. Discussion

South Korea and Taiwan have similar TM systems. First, the government ministries of TM management in these countries are managed at the same level as WM.<sup>7,8</sup> Second, both South Korea and Taiwan have dual medical systems that offer dual licenses and dual education systems for TM doctors, which are distinguished from

**Table 2**  
Comparison of the traditional medical management systems between South Korea and Taiwan.

Index	Taiwan	South Korea
Administrative department <sup>19, 20</sup>	Department of Chinese Medicine in the Ministry of Health and Welfare	Bureau of traditional Korean Medicine in the Ministry of Health and Welfare
Department organization <sup>20, 21</sup>	<ul style="list-style-type: none"> <li>o Four departments</li> <li>Division of TM</li> <li>Division of TM Pharmacy</li> <li>Division of TM and Pharmacy for License</li> <li>Division of TM Policy Development</li> </ul>	<ul style="list-style-type: none"> <li>o Two departments</li> <li>Division of TM Policy</li> <li>Division of TM Industry</li> </ul>
Department responsibilities <sup>20, 21</sup>	<ul style="list-style-type: none"> <li>Research and development of TM management policy and related laws</li> <li>Planning and promotion of personnel management for and policy development for medical human resources in TM doctors</li> <li>Planning of the Management Policy for TM institutions and development of related law</li> <li>Management of herbal and vegetable medicines, planning of quality promotion policy and development of related law</li> <li>Other medicinal management related matters</li> </ul>	<ul style="list-style-type: none"> <li>Establishment and adjustment of TM related policy</li> <li>Research and development of and support for TM</li> <li>Training of TM doctors</li> <li>Support for TM public health policy</li> <li>Establishment of TM distribution management and an industry promotion policy</li> </ul>

TM, traditional medicine.

Note: In Taiwan, the Department of TM in the Ministry of Health and Welfare is responsible for the approval and management of manufactured TM medicines and herbal medicines, but health insurance related to TM is handled by the Central Health Insurance Service. In South Korea, the Ministry of Food and Drug Safety is responsible for the approval and management of manufactured TM medicines and herbal medicines, but health insurance related to TM is handled by the Health Insurance Review & Assessment Service.

**Table 3**  
Comparison of the traditional medical resources and their utilization between Taiwan and South Korea in 2017.

Index	Taiwan		South Korea	
	Traditional medicine	Western medicine	Traditional medicine	Western medicine
Number of hospitals <sup>22, 23</sup>	5	478	312	1808 <sup>a</sup>
Number of clinics <sup>22, 23</sup>	3839	11,499	14,155	30,958
Number of health care providers <sup>22, 23</sup>	6685 <sup>b</sup>	46,311 <sup>b</sup>	24,560 <sup>c</sup>	121,571 <sup>c</sup>
Medical expenses, <sup>24, 25</sup> million TWD/KRW (million USD)	23,933 (737)	577,461 <sup>d</sup> (17,794)	2,541,202 (2103)	47,654,799(39,433)
Share of medical expenses, <sup>24, 25</sup> %	3.7	88.2 <sup>d</sup>	3.6	68.4 <sup>e</sup>
Share of outpatient medical costs <sup>f, 25, 26</sup> %	Examination	47.1	-	34.6
	Procedure and checkup	19.4	-	54.3
	Medicine	33.4	-	1.8
Number of outpatient visits, <sup>24, 25</sup> thousand cases	38,438	278,403 <sup>d</sup>	103,057	703,784 <sup>e</sup>
Shared outpatient visits, <sup>24, 25</sup> %	11.0	79.5 <sup>d</sup>	7.4	50.3 <sup>e</sup>

TWD, New Taiwan dollar; KRW, Korean Republic won; USD, United States dollar.

<sup>a</sup>Bank of Korea. Exchange rate (02 January 2017). (<http://ecos.bok.or.kr/flex/EasySearch.jsp?topCode=036Y001>).

<sup>a</sup> Sum of second general hospitals and general hospitals.

<sup>b</sup> Based on the number of doctors.

<sup>c</sup> Based on the number of licenses.

<sup>d</sup> Sum of western hospitals and clinics.

<sup>e</sup> Sum of tertiary general hospitals, second general hospitals, and general hospitals.

<sup>f</sup> The share in Taiwan is based on the total score of the relative value points, and that in Korea is based on the total medical expenses.

**Table 4**  
Comparison of the educational systems between Taiwan and South Korea.

Index	Taiwan	Korea
Number of universities <sup>21, 26</sup>	4	12 <sup>a</sup>
Total number of students enrolled <sup>21, 26</sup>	365	750 <sup>a</sup>
Curriculum <sup>21, 26</sup>	<ul style="list-style-type: none"> <li>o 3 types</li> <li>- Department of TCM after a bachelor's degree (5 years)</li> <li>- Department of TCM in a single program (7 years)</li> <li>- Dual degree for Chinese and western medicine (8 years)</li> </ul>	<ul style="list-style-type: none"> <li>o 2 types</li> <li>- Graduate school (4 years)</li> <li>- University of Korean medicine (6 years)</li> </ul>
Dual course of traditional and western medicine	Yes	No
Curriculum for qualifying related medical practices	Yes (acupuncture education for western medicine)	No

TCM, traditional Chinese medicine.

<sup>a</sup> Includes 1 graduate school.

158 those for WM doctors. Third, the social status of TM doctors is similar to that of WM doctors in both societies. These are all features of  
159 their dual medical systems. The dual medical system maintains the  
160 characteristics of TM, which enables it to provide a high level of service  
161 while maximizing the expertise of TM doctors,<sup>9</sup> and it expands  
162

the range of medical services available for consumers.<sup>9, 10</sup> The dual  
163 medical system has the advantage of preserving TM, as TM and WM  
164 are systemically independent.<sup>2</sup> On the contrary, the system may  
165 confuse the consumers when they are trying to choose the best  
166

**Table 5**  
Comparison of the licensing systems between Taiwan and South Korea.

Index	Taiwan	South Korea
Indicate the law for medical qualification <sup>27,28</sup>	Yes	Yes
Medical personnel qualification <sup>29,30</sup>	<ul style="list-style-type: none"> <li>○ Graduates from a TM university</li> <li>○ Among the WM doctors who graduated from medical school before 2008, those who received a TM education</li> <li>○ WM doctors who graduated from a dual major university program</li> </ul>	<ul style="list-style-type: none"> <li>○ Graduates from a TM university or TM graduate school</li> </ul>
TM doctors' WM practice	<ul style="list-style-type: none"> <li>○ Allowed to conduct some examinations<sup>31</sup></li> <li>- Blood tests, biochemical tests, urine and feces tests, radiographic tests, ECG</li> </ul>	<ul style="list-style-type: none"> <li>○ Allowed to conduct some examinations</li> <li>- 5 kinds of ophthalmologic medical devices<sup>32</sup></li> <li>- Blood tests,<sup>33</sup> urine and feces tests<sup>34</sup></li> </ul>
WM doctors' TM practice	<ul style="list-style-type: none"> <li>○ Allowed only after 192 h of acupuncture training</li> <li>- Insurance claims are not allowed<sup>35</sup></li> </ul>	<ul style="list-style-type: none"> <li>○ Not allowed</li> </ul>
Scope of the medical practice from a dual-licensed healthcare provider	<ul style="list-style-type: none"> <li>○ Both medical practices are allowed</li> </ul>	<ul style="list-style-type: none"> <li>○ Both medical practices are allowed</li> </ul>
Establishment of a medical institution by a dual-licensed healthcare provider	<ul style="list-style-type: none"> <li>○ Only one medical institution is allowed<sup>36</sup></li> </ul>	<ul style="list-style-type: none"> <li>○ Two medical institutions are allowed</li> </ul>
Health insurance benefits of dual-licensed healthcare provider	<ul style="list-style-type: none"> <li>○ Acceptance of insurance benefits only for licensed activities</li> </ul>	<ul style="list-style-type: none"> <li>○ Both are recognized, but only the main treatment is granted when the same patient is treated on the same day</li> </ul>

TM, traditional medicine; WM, Western medicine, ECG, electrocardiogram.

medical option, and it may make the interdisciplinary convergence required by medical technology development difficult.<sup>9</sup>

The major difference between the systems in South Korea and Taiwan is that South Korea has a very strict distinction for licensing and medical practices between TM and WM, whereas Taiwan has some exceptions to those limitations. For example, Taiwanese universities offer a dual major for TM and WM. Additionally, in Taiwan, WM doctors can clinically practice acupuncture after receiving TM training, and TM doctors are allowed to use some WM devices to a certain extent, such as X-rays. However, in South Korea, it is illegal for WM doctors to perform acupuncture or prescribe herbal medicine or for TM doctors to use WM devices and prescribe WM drugs, and there is no additional training system available to provide the ability to use the opposing practices and drugs.

Because of this strict dual license system, there is significant conflict and social problems between the two medical professions in South Korea.<sup>5,9,11,12</sup> However, there is less conflict between the two medical professions in Taiwan. The association of WM doctors asked the government to approve the use of X-rays by TM doctors in Taiwan. The low conflict observed in the dual medical system in Taiwan is likely due to it being more adjustable in allowing cooperation between the two systems.

Taiwan provides public health insurance for ancillary TM services for patients suffering from cerebrovascular diseases and tumors who are hospitalized in western hospitals. This public health insurance facilitates medical cooperation between TM doctors and WM doctors.<sup>16</sup> In Korea, health insurance for the integrative medical services is currently under a pilot project that is only available in some national hospitals, and it has been allowed to be used by medical service providers providing alternative care since 2010. Additionally, in Taiwan, the proportion of dual-license doctors was 5.8% of the total WM doctors and 22.7% of the total TM doctors in 2014.<sup>14</sup> This figure is very high in comparison to that in South Korea, where only 1.4% (319 of the total 23,460 TM doctors) are dual-license doctors.<sup>15</sup> It seems that the dual-licensed doctors in Taiwan are likely to play a certain role in the interpretation of the medical paradigms between the two disciplines.

However, the institutionalization of TM in South Korea is ahead of that in Taiwan. First, the South Korea government has established a law called the 'Oriental Medicine Promotion Act' for the development of TM. Based on this law, the South Korean government devises a 'Comprehensive Plan for the Development of TKM' every five years. Second, health insurance for TM medical services includes in- and out-patients, as well as automobile and industrial insurance. The rigid medical dual system of South Korea strength-

ens the foundation on which TM can be further enhanced, and it is derived from the greater degree of institutionalization of TM.

This study has the following limitations. Since we only compared two societies, it is difficult to generalize these results to social theory. Individual case analysis is relatively weak compared to cross-case analysis.<sup>17,18</sup> In addition, social and cultural analyses were not conducted in this study. For example, the reason for the widespread use of traditional herbal medicine was not considered, even though it could be due to patients' beliefs in addition to institutional reasons.

Despite these limitations, this study is the first to analyze the education, licensing, and medical use of TM services in South Korea and Taiwan. Lijphart<sup>17</sup> highlighted the limitations of individual case analysis studies, but they have the advantage of being able to conduct intensive and in-depth research by focusing on a single case. Therefore, it may be necessary to develop a theoretical framework of social change according to changes of TM systems on the basis of this study. Additionally, the results of this study can be used as the basis for improving TM systems and/or introducing a new system through an in-depth analysis of the systems that have had a positive effect on the development of TM in Taiwan.

In conclusion, South Korea and Taiwan have similar dual medical systems. However, Korea has a stricter dual medical system than Taiwan, which has led to serious social conflicts and difficulties in cooperation between TM and WM in South Korea. Since this study only compares two countries, it is expected that studies performed in other countries will be needed to understand the effect of the institutional separation of TM and WM on other societies in the future.

#### Author contributions

Conceptualization: BL and DK; Methodology: BL and DK; Software: None; Validation: None; Formal Analysis: DK; Investigation: DK, CCS, HCC, SHK and HK; Resources: DK, CCS, HCC, SHK and HK; Data Curation: DK, CCS, HCC and SHK; Writing – Original Draft: DK; Writing – Review & Editing: BL and DK; Visualization: None; Supervision: BL; Project Administration: BL; Funding Acquisition: None; Conceptualization: AA and BB. Methodology: CC, DD, and EE. Formal Analysis: AA and EE. Investigation: AA, CC, DD, and FF. Data Curation: AA. Writing – Original Draft: AA. Writing – Review & Editing: BB and GG. Supervision: GG. Funding Acquisition: BB.



**Conflict of interest**

The authors declare no conflict of interest.

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**Ethical statement**

This research did not require an ethical approval as it does not involve any human or animal experiment.

**Data availability**

The data will be made available upon request.

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