

Evaluation Indicators and Optimization Path for Intercultural Communication Competence of Traditional Chinese Medicine

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Abstract: As Traditional Chinese Medicine (TCM) gains increasing global attention, its effective dissemination across cultural boundaries has become a critical issue in international communication and global health governance. However, existing dissemination efforts often face challenges such as cultural misinterpretation, limited policy support, and inadequate evaluation mechanisms. This study aims to construct a comprehensive framework for evaluating the intercultural communication competence of TCM and to propose optimization strategies for its global promotion. Drawing on Lasswell's 5W communication model, intercultural communication theories, and policy analysis, this research develops a multi-dimensional evaluation indicator system encompassing communicator professionalism, media coverage and interactivity, translation accuracy, cultural adaptability, and audience reception. Based on these indicators, the study proposes a set of optimization paths, including enhanced policy and institutional support, localized content strategies, media digitalization, and interactive communication mechanisms. The findings provide both theoretical foundations and practical guidance for improving the effectiveness of TCM's international communication. By offering a scientific basis for assessment and optimization, this research contributes to bridging cultural gaps and advancing the high-quality development of TCM in the global context.

Keywords: traditional Chinese medicine; intercultural communication; intercultural communication competence; communication competence evaluation; global health communication; optimization strategies

1. Introduction

In an era marked by deepening globalization and increasing cultural diversity, Traditional Chinese Medicine (TCM), as a vital embodiment of Chinese cultural heritage and a treasure of traditional medical knowledge, is encountering both unprecedented opportunities and significant challenges in its global dissemination [1]. With the advancement of initiatives such as the Belt and Road and the continuous expansion of international exchanges and cooperation, the internationalization of TCM has accelerated [2]. However, its dissemination outcomes vary considerably across different cultural contexts. A pressing theoretical and practical issue thus arises: how can we scientifically and systematically evaluate the intercultural communication competence of TCM, and subsequently propose effective optimization pathways? Establishing a robust evaluation framework is crucial for assessing TCM's communication capacity and refining dissemination strategies. Such efforts are essential to enhance the international recognition of TCM and to promote its cultural value worldwide [3]. Existing research on TCM primarily focuses on theoretical exposition and clinical practice, with limited attention given to systematic and quantitative assessments of its intercultural dissemination effectiveness, audience reception, and communication pathways [4]. Although some studies, both domestic and international, have attempted to construct communication

evaluation models, they often fail to fully consider the unique cultural connotations of TCM and the challenges of intercultural adaptation in global contexts.

Therefore, it is imperative to develop a comprehensive evaluation system tailored to the international communication of TCM by integrating relevant theories from intercultural communication and traditional medicine globalization. This study aims to construct a theoretically grounded set of evaluation indicators for assessing TCM's intercultural communication competence and to propose practical optimization strategies. First, drawing on intercultural communication theory and the internationalization theory of traditional medicine, we identify key dimensions involved in the TCM communication process, including communicators, content, media, and audiences. Based on the evaluation outcomes, we then propose targeted optimization pathways to enhance the global dissemination and promotion of TCM, providing both theoretical insights and practical guidance.

The focus of this study is on various stakeholders involved in the international communication of TCM, including governmental authorities, academic institutions, professional communication organizations, and enterprises or platforms engaged in digital media-based TCM promotion. By establishing a scientifically grounded and logically structured set of evaluation indicators, this research aims to offer measurable foundations and practical recommendations for improving TCM communication effectiveness and refining intercultural communication strategies. Ultimately, this contributes to the effective global dissemination and acceptance of TCM culture. The structure of this paper is as follows: The first section introduces the research background, significance, objectives, and scope. The second section provides a literature review, highlighting existing research on TCM international communication and intercultural communication theories, as well as identifying key research gaps. The third section elaborates on the construction of the evaluation indicators. The fourth section proposes optimization strategies and pathways based on the evaluation framework. The final section concludes the study and outlines directions for future research.

2. Related Works

In recent years, Traditional Chinese Medicine (TCM), as an integral component of Chinese traditional culture, has received increasing global attention. Scholars both in China and abroad have explored the current status, opportunities, and challenges of TCM's international dissemination from various perspectives, including communication channels, cultural adaptation, and international cooperation. Studies have shown that TCM dissemination primarily relies on traditional academic exchanges, printed publications, and, more recently, rapidly developing digital media platforms. However, due to limitations such as narrow communication channels and imprecise information delivery, the effectiveness of TCM communication varies significantly across different cultural contexts [5].

Researchers have emphasized that TCM, characterized by a rich theoretical system and profound cultural connotations, involves not only the transmission of medical knowledge and techniques but also the complex cross-cultural interpretation of its underlying philosophies. Common challenges in TCM's international communication include language barriers, symbolic misinterpretations, institutional discrepancies, and cultural misunderstandings [6], which often hinder its effective dissemination in diverse national and regional settings. Some studies have examined the roles of governments and international organizations in promoting TCM globalization, highlighting policy support and transregional cooperation as critical factors. Nevertheless, many practical obstacles remain in implementation [7,8]. Other scholars have identified successful cases in international TCM communication, asserting that TCM's distinctive theoretical system and therapeutic methods possess considerable global competitiveness. However, they also underscore the need for improvement in overall communication strategies, brand building, and cultural adaptability [9].

Current intercultural communication efforts still face multiple challenges, including limited awareness of TCM in Western societies, incomplete legalization of traditional Chinese medicine in certain countries, and a lack of standardized TCM practices [10]. To address these issues, it is necessary to enhance global public awareness of TCM, promote its efficacy and scientific legitimacy, advocate for its legal recognition, cultivate interdisciplinary TCM professionals, and strengthen the intercultural communication competence and cultural soft power of TCM. These efforts will be instrumental in advancing the global dissemination of TCM culture.

Intercultural communication competence (ICC) evaluation is a critical subfield within intercultural studies, aiming to scientifically assess the ability of individuals or organizations to engage in effective communication and interaction across cultural boundaries [11]. For instance, Jia Guanchun et al. employed the Intercultural Sensitivity Scale along with a self-developed questionnaire to evaluate the intercultural sensitivity and TCM communication competence of 151 young and mid-career physicians at Xiyuan Hospital, China Academy of Chinese Medical Sciences. The findings indicated that factors such as educational background, English proficiency, and prior

dissemination experience significantly influenced communication competence. The study further recommended the development of quantitative assessments for evaluating TCM communication abilities among young physicians and emphasized the importance of these factors in talent selection processes [2]. Similarly, Ma Lamei et al. [12] proposed a competency framework for students majoring in English at TCM universities, encompassing five key dimensions: English language proficiency, TCM cultural knowledge, intercultural communication skills, humanistic literacy, and innovation capacity. They urged educational authorities to establish standardized assessment criteria for TCM communication competence, which would help clarify the direction of curriculum design and talent cultivation, thereby promoting the development of TCM on a global scale. In another study, Hu Liping et al. [13] designed a self-assessment scale for university students at TCM institutions to measure their intercultural communication abilities. Their research analyzed variations across student groups with different exchange experiences, educational backgrounds, and training categories, and proposed several practical strategies for improving students' intercultural competence—such as enhancing their English proficiency, strengthening TCM professional training, and encouraging international exchange activities.

A review of existing literature reveals that while substantial theoretical efforts have been made in the domains of intercultural communication and TCM globalization, there remains a lack of integration between the two. Most current evaluation frameworks or measurement tools focus on specific stages of communication or emphasize a single dimension, lacking the systematic and comprehensive scope necessary for effective analysis. Moreover, there is insufficient theoretical guidance on how to construct interculturally adaptive evaluation indicators that align with the unique attributes of TCM. Consequently, there is a clear need to develop a multidimensional evaluation system encompassing communicators, content, media, and audiences. Such a system would not only fill the current research gap but also provide theoretical and methodological support for optimizing TCM international communication strategies in practical contexts.

3. Evaluation Indicators for ICC of TCM

3.1. Theories of Communication Effect Evaluation

Communication effect evaluation theory emphasizes whether transmitted information achieves its intended impact and highlights the significance of feedback mechanisms. One of the most influential models in this domain is Lasswell's 5W model, which systematically analyzes the communication process through five key components: Who (the communicator), Says What (the content), In Which Channel (the medium), To Whom (the audience), and With What Effect (the outcome) [14]. The effectiveness of communication is a critical dimension in evaluating intercultural competence—questions such as whether the information was clearly understood and whether it changed the audience's attitudes toward Traditional Chinese Medicine (TCM) are essential considerations. This theory provides a structural foundation for designing indicators such as the professionalism of communicators, the coverage and interactivity of media channels, and the mechanisms for audience feedback. Representative theoretical models include Lasswell's 5W Model and Reception Theory [15]. These theories guide the construction of indicators measuring clarity of message delivery, audience comprehension, and attitudinal shifts. Based on this framework, the following evaluation indicators for TCM's intercultural communication competence are proposed:

- (1) **Professionalism and Influence of Communicators.** This indicator assesses the authority and resource integration capacity of various actors involved in international TCM dissemination—such as government agencies, academic institutions, and media platforms—corresponding to the “Who” element in the 5W model.
- (2) **Media Coverage and Interactivity.** This indicator evaluates the performance of both traditional and digital media in terms of information dissemination, audience reach, and interactive feedback, reflecting both the “In Which Channel” and “With What Effect” aspects of communication.
- (3) **Audience Feedback and Interaction Mechanism.** This indicator investigates the audience's engagement, feedback, and level of trust regarding TCM-related content, thereby validating the effectiveness of the communication process from the perspective of audience reception.

3.2. Intercultural Communication Theory

Intercultural communication theory focuses on the encoding, transmission, and decoding of information across culturally diverse environments, emphasizing how cultural differences affect message interpretation and communication outcomes. It highlights the necessity for communicators to consider linguistic, symbolic, and value-based factors to ensure accurate understanding within the target cultural context. The concept of Intercultural Communication Competence (ICC) encompasses a multidimensional set of capabilities, including attitude, knowledge, skills, behavioral adaptability, and critical cultural awareness. In the context of TCM, international

dissemination involves complex cross-cultural processes of encoding and decoding information. Intercultural communication theory provides critical guidance on how to adapt to target cultures and avoid misinterpretations or information distortion. Relevant indicators include translation accuracy, cultural adaptability, and audience cognition and acceptance. Representative frameworks such as Hofstede's Cultural Dimensions Theory [16] and Cultural Adaptation Theory [17] offer analytical tools for assessing how TCM content is received across different cultural settings. Based on these principles, the following evaluation indicators are developed:

- (1) Accuracy of Language Translation. This indicator evaluates the precision with which TCM-specific terminology is translated across languages, directly reflecting the quality of message encoding and decoding and preventing misunderstandings due to language barriers.
- (2) Cultural Connotation and Localization Adaptability. This indicator measures the degree to which TCM content is adapted and localized for the target culture, including the reinterpretation of traditional cultural elements. It aligns with the intercultural communication requirement of sensitivity to cultural differences.
- (3) Audience Cognition and Acceptance. This indicator assesses how well audiences from different cultural backgrounds understand and accept TCM-related information. It reflects the effectiveness of message decoding and audience feedback within intercultural communication contexts.

4. Optimization Path for ICC of TCM

4.1. Policy Enhancement and Institutional Support

The international dissemination of Traditional Chinese Medicine (TCM) heavily relies on strong policy guidance and institutional guarantees. As highlighted in the evaluation framework for intercultural communication competence, policy support is a critical component in enhancing dissemination capabilities. It is recommended that national-level policies specifically addressing the global communication of TCM be developed or refined. These should recognize the strategic importance of TCM communication, provide dedicated promotion plans and supportive policies, and offer institutional guarantees for various communication stakeholders. An effective mechanism should be established to integrate efforts across sectors such as health, culture, diplomacy, and education. A cross-departmental coordination system can ensure that policy development and implementation align with the practical needs of TCM's intercultural dissemination. Resources from institutions such as the National Health Commission, National Administration of TCM, Ministry of Culture and Tourism, and Ministry of Science and Technology should be integrated to form a synergistic policy ecosystem. Leveraging global platforms such as the Belt and Road Initiative and Confucius Institutes of TCM, China should deepen collaboration with international organizations such as WHO and UNESCO to jointly develop standards and certification systems for TCM communication. Furthermore, TCM institutions should be encouraged to cooperate with international NGOs, and to support overseas medical aid programs and student exchanges, thereby expanding the real-world application scenarios of TCM globally.

4.2. Optimization of Communication Content and Localization Strategy

The scientific accuracy and cultural adaptability of content are key factors influencing the effectiveness of TCM's international communication. TCM theories, treatment methods, and cultural connotations should be adapted to suit the cultural background and needs of target countries. Efforts should be made to avoid cultural misunderstandings caused by literal translations. Instead, expert-led translation and intercultural editing teams should ensure that content retains core TCM values while aligning with local cultural norms. The credibility of TCM can be strengthened by integrating evidence from modern medical research and clinical data. Using data visualizations, scientific reports, and experimental results, TCM's safety and efficacy can be communicated more convincingly to international audiences. Communication content should go beyond traditional text and images to include videos, animations, and interactive online courses. These formats enhance audience engagement and improve message retention. Meanwhile, multilingual translation teams should be established to ensure accuracy of technical terminology and foster the development of interdisciplinary professionals proficient in both TCM and intercultural communication.

4.3. Upgrading Communication Channels and Promoting Digital Transformation

With the rise of digital media, new communication channels play an increasingly vital role in international dissemination. Optimizing media strategies is essential for improving the intercultural communication competence of TCM. While traditional media offers authority and in-depth reporting, new digital media such as social networks, short video platforms, and live streaming can dramatically enhance dissemination speed and reach. By presenting

TCM in a vivid and engaging manner, international audiences are more likely to participate and engage. Big data and artificial intelligence technologies should be leveraged to establish monitoring systems that track the effectiveness of TCM communication across channels. Data analytics can guide real-time content optimization and personalized dissemination strategies tailored to diverse audience groups. AI-powered tools for automatic translation and localized content delivery can dynamically adapt language and communication styles to meet the needs of culturally diverse audiences, thereby increasing accessibility and audience acceptance.

4.4. Enhancing Audience Engagement and Cross-Cultural Communication Strategies

The effectiveness of communication ultimately hinges on audience acceptance and feedback. Therefore, optimizing audience interaction and building effective cross-cultural communication channels are central to improving overall communication capacity. A multi-tiered audience feedback system should be developed, including surveys, online discussions, and social media interactions. These tools can regularly capture international audience perceptions, attitudes, and suggestions, providing actionable insights for adjusting communication strategies. Cross-cultural communication and language training should be offered to TCM enterprises, professionals, and scholars involved in dissemination. These programs will enhance their ability to communicate effectively in multicultural environments and convey the core values of TCM. Furthermore, an international certification system for TCM practitioners should be strengthened to ensure alignment with local professional standards and increase the legitimacy of TCM practice abroad. TCM communication platforms should foster deeper engagement with international audiences by building hybrid (online-offline) cultural communities. Through themed events, cultural festivals, and academic forums, interaction between global scholars and the public can be facilitated, thereby enhancing recognition and participation in TCM culture worldwide.

5. Conclusions

In summary, this study provides a theoretical framework and practical pathway for evaluating the intercultural communication competence of Traditional Chinese Medicine (TCM), offering valuable references for policymakers, enterprises, and academic institutions. As the global landscape continues to evolve, the international communication of TCM must further explore adaptive models tailored to the diverse needs of different countries. In doing so, TCM can play a more significant role in global health governance and contribute to the shared development and dissemination of Chinese medical culture worldwide. This research has proposed a set of evaluation indicators from an intercultural communication perspective, systematically examining the international communication capacities of various stakeholders involved in TCM dissemination, along with the challenges they face. The proposed indicators offer a structured theoretical basis for assessing the strengths and limitations of TCM communication across cultures. Building on these indicators, the study outlines optimization strategies across several dimensions, including policy support, content localization, media transformation, and audience engagement.

These strategic recommendations are intended not only to enhance the overall effectiveness of TCM's global communication but also to serve as practical guidance for institutions formulating promotion plans. Moving forward, further research could focus on expanding the data sample, dynamically refining the evaluation system, and integrating advanced data analytics to strengthen the robustness and adaptability of the framework. Additionally, attention must be paid to the continuously changing international communication environment, with ongoing refinement of evaluation indicators to sustain the momentum of TCM globalization. Overall, this study lays a theoretical and methodological foundation for the scientific assessment of TCM's intercultural communication competence. Through its proposed optimization paths and strategies, it contributes to building a solid bridge for TCM's international dissemination and cultural exchange. It is hoped that the findings of this research can support evidence-based policy development and practical implementation, thereby advancing the high-quality global development of Traditional Chinese Medicine.

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Conflicts of Interest

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