

Negative Transfer of Mother Tongue of Foreign Students in Medical Chinese Learning

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Abstract: With the improvement of Chinese medical level and higher education level, more and more international students choose to study medicine in China. Foreign students learning medical Chinese in different countries will be affected by their mother tongue. This phenomenon of negative transfer of mother tongue has brought great trouble to medical Chinese teaching. This paper studies the negative transfer of mother tongue in medical Chinese learning by analyzing the learning content of medical Chinese and the differences between foreign students' mother tongue and medical Chinese. In order to more intuitively understand the impact of negative transfer of mother tongue on learning medicine in China, and to help foreign students learn medicine more effectively in China, two types of foreign students were selected as the main research object in Medical University, and one class was taken as the experimental group. In the process of medical Chinese teaching, according to the differences between their mother tongue and medical Chinese, the other class as the control group for routine medical Chinese teaching. After a semester of Chinese language test results showed that the medical group had higher scores.

1. Introduction

Medical Chinese [1] is an important tool for foreign students to live and study medicine in China. It is necessary for them to learn medical Chinese. There are two important factors for medical students to study abroad, which need to be solved in the initial stage[2,3]. One is language barrier[4], the other is to observe and adapt to the social culture of the host country. The learning of medical Chinese is a necessary and sufficient transition for students to fully understand the current situation of Chinese medicine, better learn medical professional courses and adapt to the practice environment of Chinese hospitals in the future. Therefore, high-quality medical Chinese learning plays a basic supporting role in medical learning.

Language transfer [5] is a psychological process in which L2 learners stimulate the development of mother tongue knowledge or use interlanguage. Language transfer can be divided into two types: the positive transfer of mother tongue is the rule transfer of mother tongue, which has a positive effect on the target language; while the negative transfer of mother tongue is that the language rules of the mother tongue do not conform to the habits of the target language and hinder foreign language learning[6-8]. There are many language factors restricting the transfer, such as pronunciation, vocabulary, grammar and so on. In the process of bilingual learning and application, mother tongue will inevitably produce transfer effect.

This paper studies the negative transfer of mother tongue of foreign students in medical Chinese learning. Through the comparative experiment, we can see that the medical Chinese scores of the targeted counseling class are significantly higher than that of the ordinary class. This shows that negative transfer of mother tongue has a significant impact on medical Chinese learning. In view of this phenomenon, improving the teaching method of medical Chinese [9, 10] is helpful to improve the effect of foreign students' learning medical Chinese.

2. Negative Transfer of Mother Tongue in Medical Chinese

2.1 Learning Contents of Medical Chinese

In order to improve the medical Chinese communication ability, foreign students need to learn the relevant Chinese language ability, which includes not only the learning of language elements, but also the training of speech skills, pragmatic rules, verbal communication ability and related cultural knowledge. As medical Chinese learning itself has the nature of professional learning, all Chinese ability learning must be centered on medicine. In the process of medical Chinese learning, the use of Chinese pronunciation and basic grammar is no longer the main content of language elements learning. The focus of medical Chinese learning is to rapidly expand medical Chinese vocabulary, that is, to be familiar with and master common Chinese characters in various departments of hospitals, such as Chinese names, common diseases, drugs and human organs in a given class hour, and be able to effectively use these words in medical communication activities.

2.2 Language Differences Resulting in Negative Transfer

The main reason for the negative transfer of mother tongue of foreign students in medical Chinese learning is the difference in pronunciation and vocabulary between mother tongue and Chinese.

Many foreign students' mother tongue belongs to phonetics, while Chinese belongs to ideograph. There are many differences between Chinese and Pinyin. A Chinese character represents a syllable. Sometimes a Chinese character can have more than two different sounds, representing different syllables. Sometimes, several different characters represent the same syllable. Most of the phonetic problems of foreign students are caused by the differences between their mother tongue phonetic system and Chinese phonetic system.

This is very difficult for foreign students whose mother tongue is strictly divided into parts of speech. At the same time, some semantics of Chinese and foreign languages do not correspond in meaning and usage. This part of speech feature of Chinese makes it difficult for foreign students who take different languages as their mother tongue to distinguish Chinese parts of speech and correctly use vocabulary under the influence of mother tongue thinking.

3. Improvement Experiment of Medical Chinese Teaching for Negative Transfer of Mother Tongue

3.1 Experimental Background

In order to enable medical students to use Chinese for medical practice and practice, many universities have set up medical Chinese courses. However, there are many differences between Chinese and foreign students' mother tongue, which leads to the occurrence of negative transfer of mother tongue. Traditional medical Chinese teaching often ignores the negative transfer of mother tongue to foreign students. Medical Chinese learning difficulties lead to poor teaching quality and unsatisfactory learning effect of medical Chinese.

3.2 Experimental Design

This paper takes junior students of Qiqihar Medical University as the research scope. Because the junior students have taken professional courses for two years, and have lived in China for two years, they can have a certain basic knowledge of daily Chinese and master the basic professional knowledge of medicine. Therefore, taking the junior students as the research object can obtain ideal results.

In this experiment, the students were divided into two groups. One group was given traditional teaching, and the other group was given additional language discrimination counseling on negative transfer of mother tongue of foreign students, and their learning situation was compared in the form of regular test and final test. The results show that the influence of negative transfer of mother tongue can help foreign students' better master Chinese rules and their scores are generally better

than traditional teaching, compared with adding additional language differences to guide teaching and students' learning situation. The experimental results are shown in Table 1, in which the full score of the test is 100.

Table 1. Final Test Results

The evaluation index	The experimental group	The control group
Average score	83.2	70.5
Highest score	95.0	91.0
Lowest score	64.9	49.4

4. Discussion

4.1 Analysis of Medical Chinese Teaching under the Influence of Negative Transfer of Mother Tongue

As shown in Figure 1, from the results of four classroom tests, after one semester of study, the Chinese proficiency of two types of foreign medical students has been improved, which shows that the schools provided by Chinese medical courses have a significant impact on the improvement of Chinese medical level of foreign students. It can be seen that in the first test, that is to say, at the beginning of this semester, the scores of the two classes are almost the same, which is lower than that of the experimental group. This shows that the two types of medical level operation in China are basically at the beginning of the same vocational semester. However, from the results of the three follow-up classroom tests, it can be seen that although the scores of the two classes have increased, the number of overseas students in the experimental group is increasing. At the end of the semester, the average score of the two classes has been expanded to more than 10 points, which indicates that the new Chinese medical teaching method, which takes into account the influence of negative transfer, foreign students' mother tongue on Chinese medical teaching, It can significantly improve students' medical Chinese scores and help them learn medical Chinese more effectively.

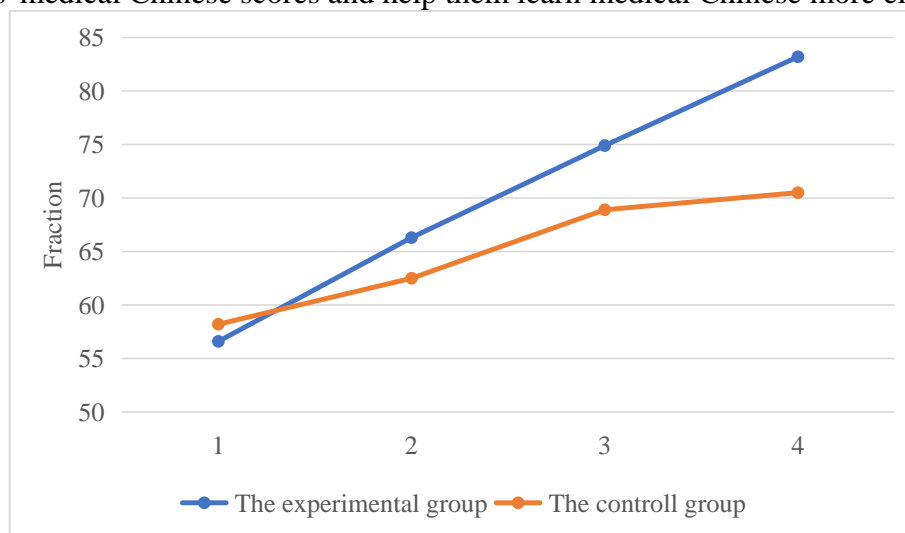


Figure 1. Comparative Analysis of the Test Results of Two Groups of Students

As shown in Figure 2, the scores of foreign students in the final examination of the two classes were statistically analyzed. We found that the scores of the international students in the experimental group were higher than those in the control group in multiple-choice questions, blank filling questions, judgment questions and short answer questions. Among them, the gap between multiple-choice questions and judgments is small, and the gap between filling gaps and short answer questions is larger, especially the short answer questions show that negative transfer of mother tongue has a negative impact on all aspects of medical Chinese learning, especially for

foreign students learning medical Chinese vocabulary and complete sentence expression.

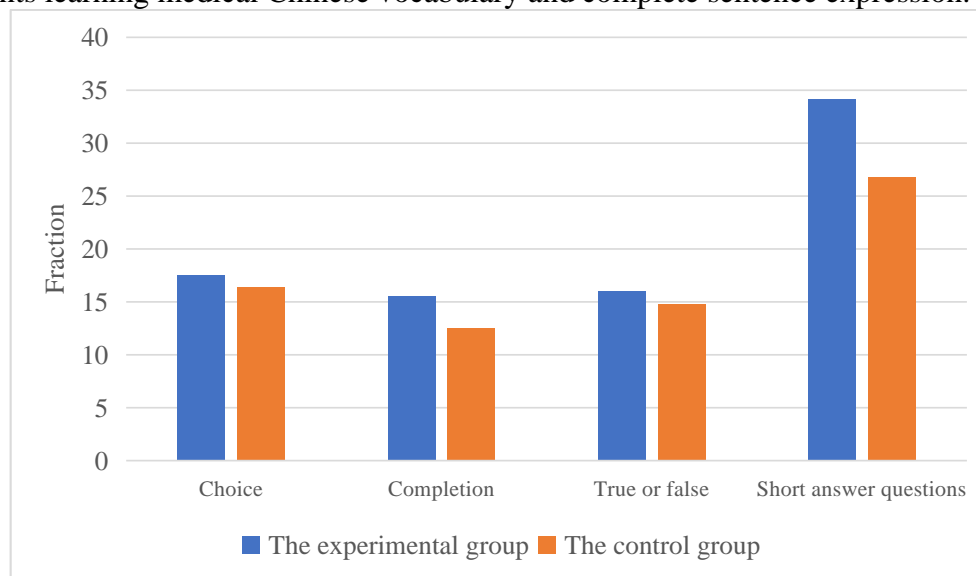


Figure 2. A Comparative Analysis of the Results of the Final Test of Two Groups of Students

Therefore, in the process of medical Chinese teaching, university teachers need to pay attention to the mother tongue and Chinese of foreign students with phonetic and semantic differences, realize the negative impact of negative transfer of mother tongue in Chinese medical teaching, and add corresponding discrimination to guide teaching, which can effectively improve the teaching quality of Chinese Medical courses. Foreign students should also pay attention to this point when learning medical Chinese, actively understand the characteristics of Chinese, avoid the occurrence of negative transfer of mother tongue, and improve their medical Chinese level more effectively.

4.2 Suggestions for International Students to Learn Medical Chinese

Medical Chinese is a compulsory course for international medical students in China. Chinese is the main language environment of Chinese medical education. Although professional courses can be taught in English, in more learning environment and workplace, people can still use Chinese proficiently. According to the survey: for foreign students who can communicate in professional Chinese, teachers can give more accurate and effective help in answering questions; during the internship or work, the superior doctors are more willing to guide them to carry out clinical skills operation, and directly participate in patient management, such as writing medical records, issuing test forms, etc.; Patients also have more confidence in foreign students. They can communicate with themselves in professional Chinese and are willing to accept and cooperate. To learn medical Chinese well, we need to have good learning methods, especially to avoid the negative influence of mother tongue negative transfer on learning.

The teaching objective of medical Chinese course is to improve the Chinese ability of foreign students in clinical probation stage. International students should communicate with patients, teachers, doctors and nurses during clinical probation. At the same time, they should be able to read and understand the medical records, preferably in Chinese. Therefore, the listening and expression ability of medical Chinese is very important for medical students. At the same time, foreign students are required to master the ability to recognize and write Chinese characters.

Therefore, in the process of learning, foreign students can adopt the method of listening and speaking. Listening and speaking learning method focuses on the training of sentence patterns and specific vocabulary, which can help foreign students improve their oral ability in a short time. It is very helpful for international students to practice some sentence patterns that will appear in clinical practice. In the learning process, we also pay attention to the simulation of clinical practice scene of international students. International students can watch relevant videos at least once a week to keep them interested in learning. In addition, according to the needs of foreign students to read medical records, we can find some related books. These books specially summarize a series of high

frequency words in medical records, including patient's surname, symptoms and description of these words, mainly nominal medical Chinese vocabulary. Foreign students should be able to recognize and write these words.

In many classrooms at home and abroad, dictation is mainly used in vocabulary teaching. The combination of subjective autonomous learning and object-oriented learning is conducive to strengthening memory and vocabulary mastery. However, for foreign students with different mother tongue backgrounds, they may have different understanding of the rules of Chinese vocabulary, but the internal language is interrelated. For example, many Korean and Japanese students often switch to their mother tongue when learning Chinese. In fact, both Japanese and Chinese originated from ancient Chinese, so there are some similarities in vocabulary. However, due to the different mother tongue types of foreign students in different countries, different teaching strategies should be adopted in vocabulary teaching. Therefore, in teaching activities, Chinese teachers should combine the characteristics and differences of different language types to realize personalized classified teaching. Students who teach vocabulary have different language types. According to students' cognitive rules, this paper introduces the similarities and differences between common word formation rules and Chinese vocabulary composition. We can also split and compare new words, and use induction and classification methods to deepen the understanding and mastery of Chinese word formation rules.

It is the responsibility of Chinese teachers to reduce the obstacles brought by negative transfer of mother tongue to Chinese students. Chinese teachers should let students master the obvious differences and similarities between the two languages. For Chinese teachers, on the one hand, they can collect and sort out more information about the negative transfer of Chinese thinking, and compare the characteristics of mother tongue and Chinese as much as possible. On the other hand, attention should be paid to Chinese input so that students can have more contact with the target language. The input conforms to Krashen's language input principle. With more input, foreign medical students can not only feel more medical Chinese, strengthen cognition and acquire Chinese knowledge, but also learn to express their medical views in authentic medical Chinese, get rid of the negative transfer of mother tongue and attach importance to positive transfer, so that foreign students can master medical Chinese.

Conclusion

This paper studies the influence of negative transfer of mother tongue on medical Chinese learning, explores the influence of this phenomenon on medical Chinese learning, and puts forward a method to improve the existing medical Chinese teaching mode in view of this phenomenon. Taking international medical students of a university as the research object, a one semester teaching experiment is carried out. Finally, based on the analysis of the results of the students' classroom tests and final tests, the paper gives some suggestions on the teaching of medical Chinese, and encourages foreign students to actively differentiate and analyze language differences, so as to get rid of the influence of negative transfer of mother tongue on medical Chinese learning.

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References

- [1] Chunming W M, Harrison R, Macintyre R, et al. Burnout in medical students: a systematic review of experiences in Chinese medical schools[J]. *Bmc Medical Education*, 2017, 17(1):217.
- [2] Akhtar M, Herwig B K, Faize F A. Depression and Anxiety among International Medical Students in Germany: The Predictive Role of Coping Styles[J]. *Journal of the Pakistan Medical Association*, 2019, 69(2):230-234.
- [3] Buzoianu A D, Popescu C A. Suicidal ideation among international medical students studying medicine in Romania[J]. *European Psychiatry*, 2017, 41:S621.
- [4] Adda G, Stüker, Sebastian, Adda-Decker M, et al. Breaking the unwritten language barrier: the BULB project[J]. *Procedia Computer ence*, 2016, 81:8-14.
- [5] Lee, Teresa. Dominant language transfer in the comprehension of L2 learners and heritage speakers[J]. *International Journal of Applied Linguistics*, 2016, 26(2):190-210.
- [6] Zhao Y. Negative Transfer of Mother Tongue in English[J]. *Creative Education*, 2019, 10(5):940-946.
- [7] Anghel B, Cabrales A, Carro J M. Evaluating a bilingual education program in Spain: the impact beyond foreign language learning[J]. *Cepr Discussion Papers*, 2012, 54(2): págs.
- [8] Burnham D, Singh L, Mattock K, et al. Constraints on Tone Sensitivity in Novel Word Learning by Monolingual and Bilingual Infants: Tone Properties Are More Influential than Tone Familiarity[J]. *Frontiers in Psychology*, 2017, 8:2190.
- [9] J. M. Podges, P.A.M. Kommers Kommers, K. Winnips Winnips. Mixing Problem Based Learning And Conventional Teaching Methods In An Analog Electronics Course[J]. *American Journal of Engineering Education*, 2017, 5(2):99.
- [10] Fras M K, Grigillo D. IMPLEMENTATION OF ACTIVE TEACHING METHODS AND EMERGING TOPICS IN PHOTOGRAMMETRY AND REMOTE SENSING SUBJECTS[J]. *Isprs International Archives of the Photogrammetry Remote Sensing & Spatial Information Sciences*, 2016, XLI-B6:87-94.