

Short Communication

Association study between the human resource of pharmacy and SCI dissertation

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With the development of scientific researches in China, more and more domestic researchers have their research results published in overseas journals, especially those that are indexed by Science Citation Index. There are great progresses in the field of Traditional Chinese Medicine, and many research results are published in the journals indexed by Science Citation Index. Hence, the Science Citation Indexed papers have gradually become one of the measures for evaluating achievements in scientific research in Traditional Chinese Medicine Colleges. In this study, the number of papers published as first author and/or communication author was investigated from January 2006 to December 2011 in the Traditional Chinese Medicine Academy of Beijing University of Chinese Medicine, obtained through the information resource center retrieval of the Institute of Scientific and Technical Information of China. The results obtained indicated that although the number of papers was in the increasing tendency, it was different in various majors. The author took the Chinese Medicine Academy as an example to evaluate the correlation between the human resource distribution and Science Citation Indexed papers, thus providing a reference for the objective evaluation of scientific researches in the future.

Key words: Association study, human resource, Traditional Chinese Medicine Academy, Science Citation Index (SCI) dissertation.

INTRODUCTION

In recent years, with the development of scientific and technological researches in China, more and more domestic researchers have made their research results and papers published in overseas journals. The Science Citation Index (SCI) (Bullock et al., 2011) is a citation database founded by the Institute for Scientific Information (ISI) in 1961. Science Citation Index, Engineering Index and Index of Scientific and Technical Proceedings are three of the world's famous retrieval systems of scientific literature, which are internationally recognized retrieval devices for scientific statistics and scientific evaluation. SCI is the most important one. Therefore, papers published in SCI journals (SCI papers) are becoming increasingly important in research fields in China and the quantity, influence factor and cited

frequency (Balaram, 2010; Hersey and Blanchard, 1993; Sencheng et al., 2001) of SCI papers have already become one of the most important measures for evaluating the academic level of domestic universities, scientific research institutions and scientific workers in recent years.

There are a large number of great advances in the field of Traditional Chinese medicine, and many research results have been published in the journals indexed by SCI; hence SCI papers have gradually become one of the measures for evaluating achievements in scientific research in Traditional Chinese Medicine colleges. However, some differences may occur due to the non-uniformity of the human resource distribution in various departments if the quantity, influence factor and cited frequency of SCI papers are regarded as the only measuring standards. Therefore, based on the human resource distribution in various departments, the authors chose Chinese Medicine Academy as an example to evaluate

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Table 1. The number of SCI papers in different majors of Traditional Chinese Medicine Academy from 2006 to 2011.

Major	Year						Total
	2006	2007	2008	2009	2010	2011	
Traditional Chinese Medicine Pharmacology	6	15	1	4	2	8	36
Traditional Chinese Medicine Chemistry	1	0	3	4	12	10	30
Traditional Chinese Medicine Quality Evaluation	2	1	2	2	5	2	14
Traditional Chinese Medicine Resource	0	0	0	0	5	6	11
Traditional Chinese Medicine Preparation	1	0	0	0	3	4	8
Traditional Chinese Medicine Evaluation	0	0	1	0	3	1	5
Total	10	16	7	10	30	31	104

Table 2. Per capita SCI papers distribution in different majors.

Major	SCI (piece)	Human resource (person)	Per capita (piece/person)
Traditional Chinese Medicine Pharmacology	36	8	4.5
Traditional Chinese Medicine Chemistry	30	12	2.5
Traditional Chinese Medicine Quality Evaluation	14	35	0.4
Traditional Chinese Medicine Resource	11	30	0.37
Traditional Chinese Medicine Evaluation	5	15	0.33
Traditional Chinese Medicine Preparation	8	29	0.28
Total	104	129	0.81

Test Center and Clinical Chinese Medicine Department belong to Traditional Chinese Medicine Evaluation; Chinese Medicine Crude Drug Department, Chinese Medicine Basis and New Drug Research Center and Chinese Medicine Technology Development Department belong to Traditional Chinese Medicine Resource; Department of Biopharmaceutical Sciences and Chinese Medicine Processing Research Center belong to Traditional Chinese Medicine Preparation; Basis and Practice Department belongs to the Traditional Chinese Medicine Quality Evaluation).

the correlation between the human resource distribution and SCI papers impersonally, such as the analysis of global climate change by Li et al. (2011) and Yang and Jinrong (2009)'s reference for the objective evaluation of scientific researches in the future.

MATERIALS AND METHODS

The number of papers published by the first author and/or communication author from January 2006 to December 2011 in Traditional Chinese Medicine Academy of Beijing University of Chinese Medicine was obtained through the information resource center retrieval of the Institute of Scientific and Technical Information of China. The number of papers by the Traditional Chinese Medicine Academy from 2006 to 2011 was obtained through the SCI database from the Library of Beijing University of Chinese Medicine.

RESULTS

The number of SCI papers in different majors of Traditional Chinese Medicine Academy

The numbers of SCI papers in different majors of Traditional Chinese Medicine Academy from 2006 to 2011 are shown in Table 1 and Figure 1. Based on the

data obtained, the numbers of SCI papers were found to be in an increasing tendency in the recent 5 years in Traditional Chinese Medicine Academy, and papers on Traditional Chinese Medicine Pharmacology and Traditional Chinese Medicine Chemistry took up a large proportion.

Per capita SCI papers distribution

As shown in Table 2, there are large differences among various majors, with Traditional Chinese Medicine Pharmacology taking up the highest position of per capita distribution followed by the Traditional Chinese Medicine Chemistry. The diversity of per capita SCI papers distribution is related to the diversity of research fields of different majors, and at the same time related to the human resource distribution in every special major. Therefore, according to the reports of Lou and Li (2012) and Dee et al. (2007) and based on the condition that there are large differences among different majors, the university should optimize the allocation of human resources and increase the input for scientific research in weaker disciplines to improve the strength of these disciplines and reduce the gap among different disciplines.

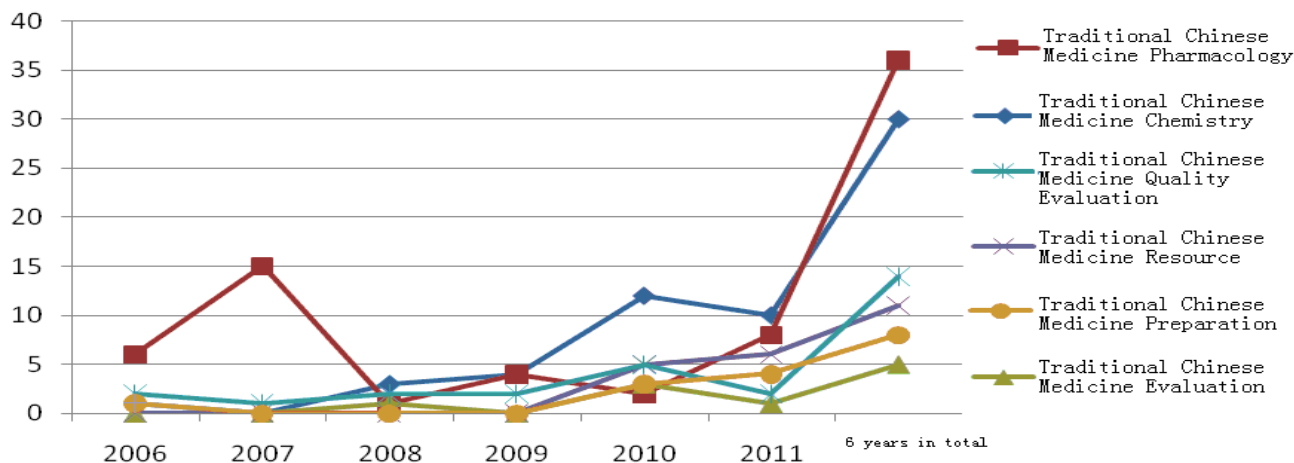


Figure 1. Graph of the number of SCI papers in different majors of Traditional Chinese Medicine Academy from 2006 to 2011.

DISCUSSION

The quantity and quality of SCI papers, important scientific and technological achievements of natural science basic researches are always considered as key indexes for reflecting the basic science and technology innovation ability of every university, which in turn affects the ranking of universities and the selection of science-technology manpower project. Traditional Chinese Medicine Academy, prominent in the quantity of SCI papers, could optimize the allocation of human resources according to the per capita SCI papers, as reported by De Granda-Orive et al. (2011) and Wan (2011). This would offer a reference for other academics to improve the comprehensive scientific research strength in Beijing University of Chinese Medicine in the future.

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