

RESEARCH

A bibliometric study of English-language materials on acupuncture

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SUMMARY. Acupuncture is widely practised in Euro-American English speaking countries. To trace its development in these countries, we studied the scope and evolution of English-language publications in the field of acupuncture.

We did this by searching a number of medical and non-medical computerized and print databases, looking at the number of texts published in English and the number of periodical citations found.

We compare the number of texts that we found with estimated numbers of texts in Asian-source languages, such as Chinese and Japanese, and trace the chronological development of the English-language texts. We also compare the numbers of English-language periodical citations to non-English citations in the same databases, and discuss the availability of Asian acupuncture periodical journals.

Our findings lead us to conclude that the assimilation of acupuncture literature from east Asian sources is still in its infancy, and that the field as a whole is in relatively early stages of development. This may be important in interpreting efforts to evaluate the status of acupuncture in English-speaking Euro-American countries.

Part of this study was reported at the Third World Conference on Acupuncture, Kyoto, Tokyo, Japan, 20-23 November 1993.

INTRODUCTION

Acupuncture originated in China more than 2000 years ago, spreading to neighboring countries such as Korea and Japan about 1500 years ago, to Europe around 300 years ago and to the USA around 170 years ago.¹ It is, however, only since Richard Nixon's historic visit to China in 1971 that it has seen a significant increase in popularity and use in Euro-American English-speaking countries.² It is thus a relatively new field in North America and the UK, said by Sivin and Unschuld to be still in its early stages.³⁻⁵

Estimates of the number of books in Chinese in the field of east Asian medicine range from over 10 000,³ to around 12 000,⁶ including texts on herbal medicine, acupuncture, massage, exercise, with a large percentage of these being technical in nature. The 1991 *Chinese Medicine Union Book Catalogue*⁷

lists 380 classical and modern acupuncture and moxibustion specific texts published in China, many of which have numerous editions and commentaries not included in this number. The number rises to 451 with related texts and does not include *Nei Jing* or *Nan Jing* treatises and their numerous commentaries. A 1961 edition of the *Union Catalogue* lists 273 *Nei Jing* and 47 *Nan Jing* related treatises in Chinese.⁸

Takeshi Ishihara of Japan compiled a list of 776 pre-Meiji-era Japanese acupuncture-related texts.⁹ With the addition of Meiji and post-Meiji-era texts, the number rises considerably. Taking these Chinese and Japanese numbers together, we can estimate that there are a minimum of 1547 unique acupuncture-related treatises in Chinese and Japanese, and considerably more than that with the addition of the uncounted Chinese commentaries, modern Japanese treatises, and Korean and Vietnamese treatises.

To date, no systematic bibliometric search of English-language publications in the field of acupuncture has been published. It would be useful to know the extent and chronology of such publications, as it can indicate the size and relative development of the field. It would also be useful to know in which computerized and print publication databases these English-language materials have been published, as this might assist future researchers.

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In this study, we describe the scope and evolution of English-language publications in the field of acupuncture. To achieve this goal, we searched relevant computerized and print publication databases in order that we might measure the size, extent, and chronology of English-language publications in the field of acupuncture. We use the term 'acupuncture' in its broader sense to include moxibustion and other related techniques. Publication of east Asian general and herbal medical books are covered separately.¹⁰⁻¹¹

METHODS

Books

To document the numbers and chronology of English-language books on acupuncture, the following computerized and print publication databases were searched:

Computerized databases

1. CATLINE (1973–1992, catalogue of the National Library of Medicine)
2. LCMARC (1968–1992, catalogue of the Library of Congress)
3. HOLLIS (1988–1992, on-line Harvard libraries catalogue database)

Print publication databases

1. *Books in Print* (1966–1992 – American books in print)¹²
2. *British Books in Print* (1970–1991)¹³
3. *Whitaker's Books in Print* (1992 – continues *British Books in Print*)
4. *Alternative Medicine* (1985 bibliography of books in English)¹⁴

Commercial catalogues

5. *Redwing Reviews* (various years – catalogue of American book distributor)¹⁵
6. *AcuMedic Review* (1991 – catalogue of British book distributor)¹⁶
7. *Collets Chinese Books* (1989 – catalogue of British book distributor)¹⁷

Because there were large discrepancies between the various computerized and print publication book databases, with many published books not in each of the databases, we included the commercial catalogues of the larger book distributors in the USA and UK.

CATLINE was searched under the controlled MeSH subject heading 'Acupuncture'. LCMARC was searched under the LCSH subject heading 'Acupuncture'. HOLLIS was searched under the key word 'Acupuncture'. Each database was manually

sorted to eliminate repeat references, references to non-acupuncture texts, and non-English references. The current databases of *Books in Print* and *Whitaker's Books in Print* were searched by computer under the key word 'Acupuncture'. Back issues of *Books in Print* and *British Books in Print* were manually searched. The book distributor catalogues and the 1985 bibliography, *Alternative Medicine*, were manually searched. Unique references in each database were then compiled and manually sorted to give the total number of unique English-language publications contained in all databases.

Periodicals

To document the numbers and chronology of articles on acupuncture the following computerized databases were searched:

1. MEDLINE (1966–1992)
2. EMBASE (1974–1992)
3. AMED (Allied and Alternative Medicine, 1985–1992)
4. *Sociological Abstracts* (1963–1992)
5. *Historical Abstracts* (1973–1992)
6. *America: History and Life* (1963–1992)
7. *Religion Index* (1949–1992)
8. NTIS (National Technical Information Services, 1913–1992)
9. *Magazine Index* (1959–1991)
10. *Newsearch* (current form of *Magazine Index*, 1992)

MEDLINE, EMBASE and AMED were searched in June 1992, on DataStar under the controlled MeSH subject headings, 'Acupressure', 'Acupuncture', 'Acupuncture Analgesia', 'Acupuncture Therapy', 'Electroacupuncture', 'Meridians', and 'Moxibustion'. The results were cross-referenced on Data-Star to eliminate repeat references.

Sociological Abstracts, *Historical Abstracts*, *America: History and Life* and *Religion Index* were searched in June 1992 on Dialog under the controlled subject headings 'Chinese Medicine', 'Oriental Medicine', 'Asian Medicine', and 'Acupuncture'. NTIS was searched on Dialog in the same month under the key word 'Acupuncture'. The results were manually sorted to eliminate non-English references, book reviews, repeat references, references on MEDLINE, EMBASE or AMED, and non-acupuncture citations.

We also searched the number of articles on acupuncture in the non-technical literature on the computerized databases *Magazine Index* and *Newsearch*, using the key words 'Oriental Medicine', 'Chinese Medicine', 'Asian Medicine' and 'Acupuncture'. These references were manually sorted to eliminate book reviews, non-English language citations, repeat citations and citations on previously searched databases such as MEDLINE.

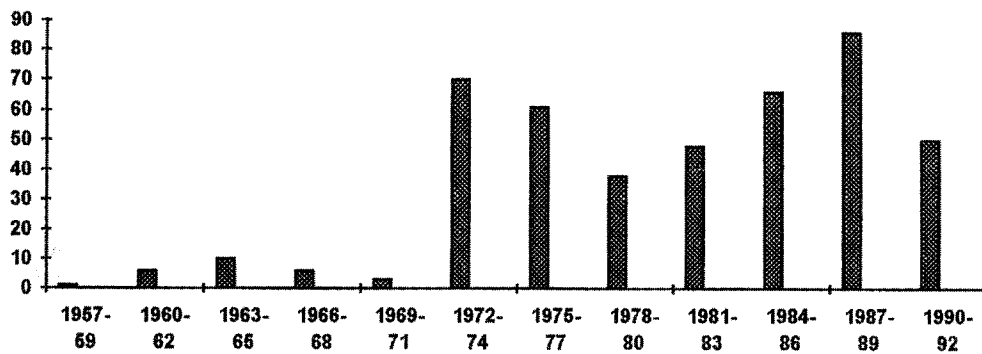


Fig. 1 Books by year of first edition.

Finally, we compiled a list of English-language journals on acupuncture, or which routinely contain articles about acupuncture, and a list of glossaries and dictionaries dealing with the technical vocabulary and language of acupuncture.

RESULTS

Books

Computerized databases

CATLINE contained a total of 257 unique references; LCMARC contained a total of 186 unique references; HOLLIS contained a total of 19 unique references.

Print publication databases and catalogues

Books in Print, *British Books in Print* and *Redwing Reviews* listed variable numbers of books that were available for each year searched. *Alternative Medicine: A Bibliography of Books in English* (1985), contained a list of 134 books. *AcuMedic Review* (1991) listed 137 books. *Collets Chinese Books* (1989) listed 120 books.

All titles were sorted to eliminate repeat references giving a total of **459** books relating to acupuncture that have been published in English since 1959. Table 1 shows a breakdown of the areas that these books cover. Figure 1 shows the chronology of book publications arranged according to year of first edition.

We further sorted all current references in *Books in Print*, *Whitaker's Books in Print*, *Redwing Reviews*, *AcuMedic Review* and *Collet's Chinese Books* to find out how many books on acupuncture are currently available. This search yielded a total of **225** books, though actual availability in the UK and North America appeared to vary considerably.

Periodicals

Medical databases

MEDLINE contained a total of 2546 English and 2373 non-English references to articles on acupuncture;

EMBASE contained a total of 2240 English and 1346 non-English references to articles on acupuncture; AMED contained a total of 1880 English and 172 non-English references to articles on acupuncture. When sorted to eliminate repeat references, 5873 English and 3684 +/- 4 non-English references were found. Figure 2 shows the chronological development of English-language articles in these 3 databases. Figure 3 shows the chronological development of unique English and non-English language articles on acupuncture in these 3 databases.

Non-medical databases

When sorted to eliminate duplication with other databases, *Sociological Abstracts* contained a total of 29 articles; *Historical Abstracts* contained a total of 12 articles; *America: History and Life* 7 articles; *Religion Index* 3 articles; and NTIS 25 articles.

The total number of English-language articles published in these 8 medical and non-medical databases was thus **5949** articles on acupuncture, just fewer than half of which were published after 1985.

Non-technical magazine databases

The search of the non-technical magazine databases *Magazine Index* and *Newsearch* yielded a total of 152 unique articles on acupuncture.

Table 1 Number and type of texts

273	technical books on the theory, diagnosis and treatment by acupuncture
71	introductory books on acupuncture
27	books on alternative or complementary medicine that discuss acupuncture
16	historical studies
13	symposia proceedings
13	dictionaries, glossaries and treatises on translation methods
13	research and physiological treatises
8	catalogues and bibliographies
6	technical reports
6	State licensing regulations
4	government reports
4	acupuncture and practice management
3	medical anthropology
2	graduate study dissertations

459

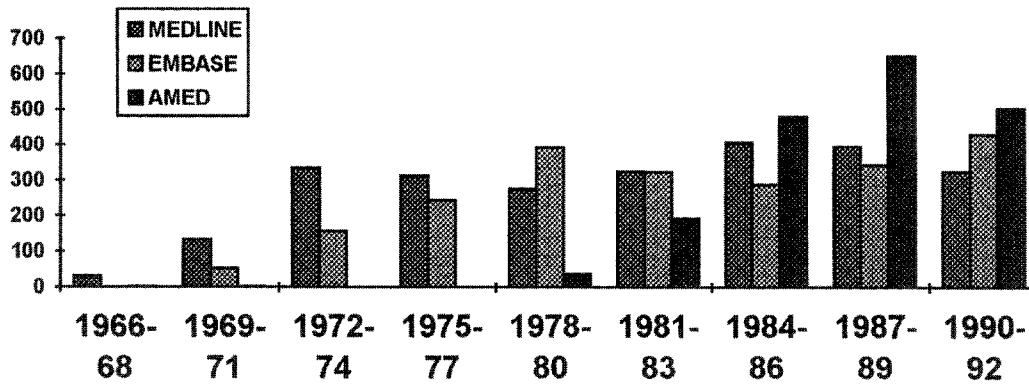


Fig. 2 English-language articles on acupuncture.

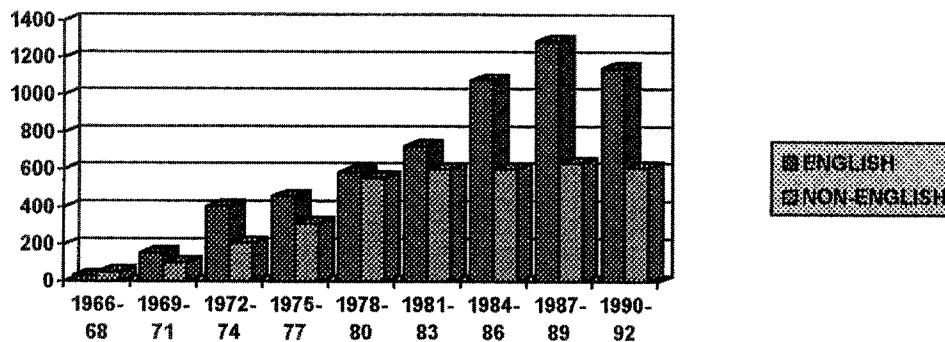


Fig. 3 Total unique articles on acupuncture.

English-language journals

Table 2 lists those English-language journals we found that are acupuncture journals or routinely contain acupuncture articles. Some of these are no longer in print.

Glossaries and dictionaries

A list of those glossaries and dictionaries specifically dealing with the technical vocabulary and language of acupuncture is given at the end of this paper.

DISCUSSION

To understand the scope of English-language acupuncture literature, it is important to look at the time-frame over which it has appeared and to compare it quantitatively to its source materials in Chinese, Japanese, and other languages.

While there are English-language references to acupuncture in medical journals dating back over 150 years,¹⁸ the actual clinical practice of acupuncture in North America and the UK, as evidenced by the appearance of textbooks on clinical practice, seems not to have started developing until the late 1950s or early 1960s. (see Fig. 1)

During the 1970s in North America and the UK it has been previously observed that acupuncture experienced a period of strong popularity followed by a decline in popularity.^{2,19} This conclusion was based on studying the numbers of periodical citations and is

supported by our current findings. Our study further shows that, since the early 1980s, acupuncture has seen a slow but steady increase in popularity, evidenced by the slow rise in the numbers of periodical citations. (see Figs 2 and 3) Public interest as gauged by the numbers of magazine articles on acupuncture, appears to have waned during the 1980s, but has seen a resurgence since 1990.

Our study found more English language citations (5873) to non-English language citations (3684 +/- 4) in the 8 databases we searched. This disproportionate number probably reflects the fact that the majority of journals in China, Japan, Korea, for instance, are not on these databases. Sixteen acupuncture-related journals can be found on the Japanese medical database JMEDICINE,²⁰ none of which are found on MEDLINE, EMBASE or AMED. There are also other Japanese journals and many Chinese journals that do not appear on these databases. Thus, much of the journal-based literature in east Asian countries such as Japan and China, is not readily available on databases in the West.

While one can see a general trend toward an increase in the numbers of books published since the early 1970s, the total number of books available in the commercial catalogues appears to have levelled off since the late 1980s. As we already noted, there was considerable discrepancy between the different book databases. Many books still in print were not found in *Books in Print* or *Whitaker's Books in Print*; many that had been published had not been catalogued on LCMARC or CATLINE. It is therefore

likely that other books have been published in English that did not show up on any of the databases we searched. However, we feel that our findings of a total of 459 books published in English is a reasonably accurate number. Of these, 71 are introductory or popular books and 273 more technical in nature. (see Table 1).

A study of the 459 book titles that were compiled in our search found twelve dictionaries and glossaries that have been published. These are listed at the end of this paper. Only one dictionary or glossary was published before 1980. Many books in English on acupuncture adopted term translations before the appearance of standardized glossaries. Further, this adoption of term 'translations' has continued to influence books that have been published since the appearance of the glossaries.

Some efforts at standardizing the terminology in acupuncture literature have been made. The World Health Organization held a series of meetings and has published a standardized acupuncture nomenclature for acupuncture points and other basic concepts.²¹⁻²³ Consensus has not been reached yet on the rest of the literature, though it appears to be slowly emerging.²⁴

Very few classical treatises have been translated into English (probably 5 or fewer). Of the 273 English-language modern treatises on the practice of acupuncture (see Table 1), we estimate that a little over 100 are either translations or contain translated materials from original east Asian source texts. Most of these 273 treatises repeat the same introductory materials and depend largely on secondary sources. Very few of all the original east Asian source texts have been translated into English from countries such as China, Taiwan, Japan, Korea and Vietnam. It thus appears that much of the literature in English relies on secondary sources, which has its own problems.^{4,5,25}

When looking at the time period over which books and articles on the practice of acupuncture have appeared in English, the relatively small numbers of these books and articles, and ongoing questions about book translation, we are led to conclude that the literature, and therefore probably the field of acupuncture in Euro-American English-speaking countries is still in early stages of development.³⁻⁵ Only a small percentage of the corpus of acupuncture literature and knowledge appears to have been assimilated from its source languages into English. These findings are important in interpreting any assessment of the historical, theoretical, and clinical acupuncture literature in English-speaking countries, and efforts to assess the status of the field in those countries. Recent analyses of clinical trials have shown a consistent inadequacy in knowledge of the practice of acupuncture.²⁶⁻²⁸ It is likely that the issues discussed here regarding the stage of development of the literature and field may have contributed significantly to this problem.

Table 2 List of English-language acupuncture journals

* Abstracts of Chinese Medicines
* Acupuncture
* Acupuncture: A Selected Bibliography
* Acupuncture and Electrotherapeutics Research The International Journal;
* Acupuncture in Medicine
* Acupuncture Letter
* Acupuncture News
* Acupuncture Research
* Acupuncture Research Quarterly
* American Academy of Acupuncture Medicine
* American Academy of Medical Acupuncture Review
American Acupuncturist
American Journal of Acupuncture
American Journal of Chinese Medicine
* Auricular Medicine and Acupuncture Physician
Australian Journal of Acupuncture
Australian Journal of Traditional Chinese Medicine
British Acupuncture Association and Register Handbook
British Journal of Acupuncture
* Chen Tzu Yen Chiu Acupuncture Research
* China Medical Reporter
* Chinese Academy of Medical Sciences and Peking Union Medical College Proceedings
Chinese Journal of Acupuncture and Moxibustion
Chinese Medical Journal
* Comparative Medicine East and West
* Complementary Medical Research
Complementary Therapies in Medicine
* Contemporary Research in Chinese Acupuncture
* Dialogues
European Journal of Oriental Medicine
Guidepoints
International Journal of Chinese Medicine
International Journal of Clinical Acupuncture
International Journal of Oriental Medicine, (formerly Oriental Healing Arts International Journal, formerly Bulletin of the Oriental Healing Arts Institute of USA)
International Journal of Veterinary Acupuncture
Journal of the Acupuncture Society of New York
Journal of Chinese Medicin (UK)
Journal of Chinese Medicin (Taiwan)
* Journal of New Chinese Medicine
Journal of the American College of Traditional Chinese Medicine
Journal of Traditional Acupuncture
Journal of Traditional Chinese Medicine
Journal of Ultramolecular Medicine
* Meridian
Meridian Times
* Needle, a.k.a. American Academy of Acupuncture Medicine
Oriental Medicine
* Review
* Review of Oriental Medicine
SAMRA Quarterly
* Traditional Acupuncture Society Journal
* Traditional Chinese Medicine Digest
Veterinary Acupuncture Newsletter
World Journal of Acupuncture-Moxibustion

* no longer in print.

ACKNOWLEDGEMENTS

Special thanks to Carol Knoth, Stephen Love, Cindy Schatz, Linda Barnes and Amy Crikelair for their assistance.

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