

# A Corpus Study of Acupuncture from the Perspective of Mass Media Based on the Corpus of Contemporary American English

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**Abstract:** Based on the Corpus of Contemporary American English (COCA), this study examines acupuncture from the perspective of mass media. Acupuncture has been circulating throughout the Chinese Cultural Circle since the Qin and Han Dynasties, and has since spread directly or indirectly to the rest of the world. The United States boasts the world's second-largest acupuncture market, with its laws, regulations, industry growth, research, and education all positively influencing the development of acupuncture in other nations. This study uses COCA to analyze the form and content of acupuncture's dissemination in eight different types of media. The findings show that acupuncture appears in COCA a total of 1,788 times, with the highest frequency in magazines, followed by blogs, and the lowest frequency in fiction. These findings reveal the popularity of acupuncture in mass media in the United States and provide empirical data and insights for the future dissemination and development of acupuncture in the United States.

**Keywords:** Mass media; Acupuncture; Corpus of Contemporary American English; Corpus study; AntConc

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## 1. Introduction

China is a country rich in cultural diversity. With 57 world heritage sites and 43 intangible cultural heritage sites, China is expected to achieve the highest ranking among nations by January 1, 2024, according to the UNESCO website. China is gaining global impact and possesses a wealth of cultural resources, but its influence is still less than that of the world's cultural superpowers<sup>[1]</sup>. Thus, the crucial question is how to effectively promote China's traditional cultural industries and resources globally while preserving and enriching its exceptional cultural characteristics during international exchange and dissemination.

Chinese medicine, including acupuncture, first appeared in China's culturally influenced regions, such as Japan, the Korean Peninsula, and several Southeast Asian nations, during the Qin and Han Dynasties. Traditional Chinese medicine (TCM) and acupuncture were brought to Europe in the 17th century and to the United States in the early 19th century via the historic Silk Road and the Maritime Silk Road. After being passed down through folklore and evolving, TCM acupuncture has developed into a modern diagnostic and

treatment approach with multicultural characteristics. This attracted significant attention and piqued interest internationally, sparking an acupuncture boom.

As one of the world's intangible cultural heritage, acupuncture has gained widespread acceptance and has been integrated into health insurance programs to facilitate industrialization. This has brought about cultural acceptance and abundant financial rewards for acupuncture, moxibustion, and related industries. With its rich cultural resources, China possesses the highest total amount of intangible cultural heritage in the world. When examining different forms of media at various levels to reflect the form and content of acupuncture's dissemination in the United States, industrialization and global dissemination have practical implications and reference significance for the overall protection of China's intangible cultural heritage.

## **2. Methodology**

### **2.1. Research questions**

In this study, we first used the free online corpus, Corpus of Contemporary American English (COCA), to analyze the overall distribution of "Acupuncture" in eight major media using "Acupuncture" as a search term. This step grasps the total frequency of the word acupuncture in the COCA corpus, as well as its category and temporal distribution, and lays the foundation for further research. Subsequently, AntConc 3.4.1's Keyword List was used to test the significance of the content of each of the eight media. Specifically, this study mainly answers the following two questions:

- (1) What is the frequency and overall distribution of "Acupuncture" in COCA?
- (2) Is there any difference in the content of acupuncture in COCA's eight sub-corpora? If so, what are the differences?

### **2.2. COCA**

The research corpus is derived from COCA, a highly influential online corpus containing more than one billion words of text (25+ million words each year from 1990–2019) from eight genres: spoken, fiction, popular magazines, newspapers, academic texts, television and movie subtitles, blogs, and other web pages. As the largest English corpus in the world today <sup>[2]</sup>, COCA can be seen as a microcosm of American mass media <sup>[3]</sup>. It is instrumental in analyzing the developmental characteristics of acupuncture from the perspective of American mass media.

### **2.3. Keyword list and keyness**

In corpus analysis, words with a very high frequency of occurrence in a single text or across multiple texts are referred to as keywords. By utilizing keywords, one can discover the linguistic characteristics of a given text or thematic texts <sup>[4]</sup>, providing insights into the relationship between word distribution at the discourse level and themes, and word associations <sup>[5]</sup>. In this study, the Keyword List in AntConc 3.4.1w was used to compare the observed corpus with a reference corpus, generating a list of words with unusually high frequencies in the observed corpus, referred to as a keyword list. To generate the keyword list, this study extracted the index lines from the eight sub-corpora of the COCA corpus and converted them into .txt format documents that are compatible with AntConc. These eight small corpora were named as follows: BLOG.txt, TV-M.txt, WEB.txt, NEWS.txt, SPOK.txt, MAG.txt, FIC.txt, and ACAD.txt.

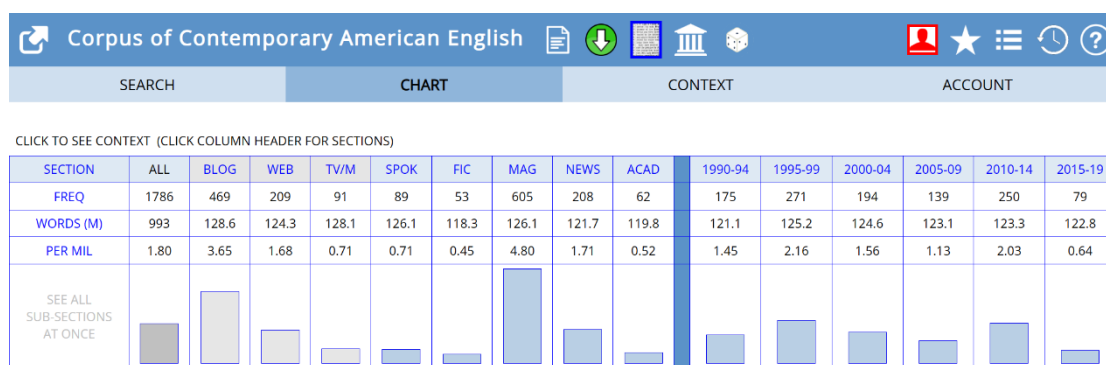
In statistics, it is generally believed that a chi-square value (with 1 degree of freedom) is considered significant at a significance level of 0.01 if it exceeds the critical value of 6.64. The chi-square value referred to here is also known as Keyness in the thematic word list <sup>[6]</sup>.

### 3. Results and discussion

#### 3.1. Frequency and overall distribution of “Acupuncture” in COCA

After inputting the term “Acupuncture” into the SEARCH interface of the free online corpus COCA, the result shows that the total frequency of “Acupuncture” in the COCA corpus is 1,788 times.

Analysis in **Figure 1** demonstrates that in terms of frequency, “Acupuncture” appears most frequently in the MAG sub-corpus, significantly higher than in the other four sub-corpora. Following MAG are the BLOG and NEWS sub-corpora, while the lowest frequency is observed in the FIC and ACAD sub-corpora. This ranking is consistent with the standardized frequency in each sub-corpus, where the standardized frequency of “Acupuncture” in the MAG, BLOG, and NEWS sub-corpora is notably higher than in the FIC and ACAD sub-corpora.



**Figure 1.** Distribution and temporal distribution of “Acupuncture” in COCA eight sub-corpora

This ranking may be related to medical trends. Acupuncture is a representative of traditional medicine, while Western medicine dominates in the United States. Therefore, acupuncture is not a popular topic in the American medical field, and there are few corresponding academic journals. However, acupuncture itself is a profound medical art worthy of in-depth research. In the United States, there is a community of individuals who possess expertise in medicine and a deep passion for acupuncture. They dedicate their efforts to researching and writing articles about acupuncture for publication in magazines, blogs, and newspapers. Acupuncture is not a prominent topic of interest in the academic and daily lives of the general population, and websites primarily cater to people’s browsing habits. Therefore, there are not many websites dedicated to acupuncture. As an integral part of traditional medicine, acupuncture is challenging to fully explain in brief terms, which is why it appears less frequently on television and in spoken language. Undoubtedly, acupuncture is practical and proves itself through results, which contradicts the nature of fiction. Therefore, it appears the least in fiction. The frequency of “acupuncture” does not exhibit a general upward trend over time. During the periods of 1995–1999 and 2010–2014, there was a boom in acupuncture popularity, whereas the interest in acupuncture sharply declined from 2015 to 2019. This indicates that acupuncture has indeed been popular among Americans at certain times, but this popularity is not sustainable and appears intermittently.

#### 3.2. Differences in the content of “Acupuncture” in COCA’s eight sub-corpora

Keyword analysis is an essential method in corpus linguistics used to emphasize the main content of a text. In this study, the top 10 keywords, with function words eliminated, are selected based on keyness. The study discusses the varying emphases of acupuncture discourse in each sub-library.

Various keywords were identified through analysis of reports in the sub-corpus of magazines, such as “says,” “brain,” “org,” “nausea,” and “university.” By using AntConc, the associations found in their contexts are observed. These keywords can generally be divided into two categories. The first category characterizes the effectiveness of acupuncture. For example, the word “says” is usually used to quote statements from professionals with a background in acupuncture or other medical fields. It reports the effectiveness of acupuncture in relieving pain, reducing stress, treating dizziness, promoting body circulation, and addressing conditions such as cocaine abuse, drug addiction, endometriosis, menstrual disorders, and infertility. It explains the principles of acupuncture therapy. On the other hand, keywords such as “brain,” “nausea,” “addiction,” and “tension” describe the significant efficacy of acupuncture in treating pain, nausea, and addiction. The keyword “after” describes the noticeable effects of acupuncture treatment after patients receive it. The second category provides evidence for the reliability and safety of acupuncture by citing scientific research or official institutions. For example, the keywords “org” and “certification” appear in advertisements on the website of the National Acupuncture and Oriental Medicine Certification Board, as recommended. The word “university” is typically used to refer to the institutions where acupuncture researchers are affiliated. Acupuncture treatments are often presented to readers through “photos,” enhancing the authenticity of the acupuncture efficacy.

The sub-corpus of the blog focuses on describing “sham” acupuncture, which involves the use of toothpicks or non-standard short needles or inaccurate needle insertion in specific acupoints. It aims to investigate whether there is a significant difference in therapeutic effects between “true” acupuncture and “sham” acupuncture treatments through “double-blinded” studies. In addition, the emphasis is also on discussing whether acupuncture acts as a “placebo” or produces genuine effects (“significant, effect, difference”) through “meta-analysis” studies. This reflects the blog’s close attention to research findings related to acupuncture. The website sub-corpus not only highlights the service branding of acupuncture and independent “freestanding” acupuncture institutes but also focuses on the discussion of acupuncture theory. It describes acupuncture theory as “change is the only universal marker of progress.” Acupuncture is a traditional Chinese medical treatment that involves inserting needles into specific “points.” There are many related classic “texts” available. Additionally, it also describes the care and precautions for patients after receiving acupuncture therapy (“yourself”).

The newspaper sub-corpus reports on the testimonies of acupuncture researchers, acupuncturists, or patients, highlighting the effectiveness of acupuncture in treating “children,” “horses,” and even breast “enlargement” in women.

The keywords in the TV/M sub-corpus are used in dialogues related to acupuncture, emphasizing colloquial language features. Descriptions of acupuncture are often based on characters in movies or television shows.

In the spoken sub-corpus, the keywords primarily consist of personal pronouns (such as “you”) or names of individuals (e.g., Dr. Stewart, Dr. Taylor, Dr. Limehouse, Flatow, Ms. Goh, Kotb), as well as “voiceovers” unique to colloquial programs. Typically, these thematic terms are followed by descriptions or comments from the referring individuals regarding acupuncture.

The academic sub-corpus focuses on advising arthritis patients to verify the “credentials” of acupuncture practitioners. Acupuncture for pain relief is a “tradition” in Chinese medicine and can reduce “complications.” Electrical stimulation of acupuncture points is “considered” beneficial for overall physical health. This reflects the cautious yet acknowledging attitude of academic journals towards acupuncture.

In the fiction sub-corpus, depictions of acupuncture are often accomplished through character roles.

## 4. Conclusion

It can be seen that although acupuncture has gained some recognition in Western countries in the past decade, it still faces certain difficulties in overseas promotion. Therefore, Chinese media should make more efforts to raise awareness of TCM and actively make more efforts to promote acupuncture to the public. This should include its benefits, safety requirements, and mode of action. On one hand, academic exchanges on the application of acupuncture should be conducted appropriately, especially to enhance the dissemination of clinical trial results, dispelling the misconceptions about acupuncture perpetuated by the American media and the public. On the other hand, close attention should be paid to the development trends of acupuncture. Establishing communication platforms between Chinese and foreign media can provide more opportunities for foreign media and the public to understand acupuncture. It is believed that with the efforts of all parties, acupuncture will be more widely used and developed in the United States and globally, making a greater contribution to the global health cause.

## Disclosure statement

The author declares no conflict of interest.

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