

# Varying Sociocultural Contexts on Effect of Acupuncture for Back Pain

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# Outline

- Introduction
- Why Acupuncture?
- Study Design
- Method of Analysis
- Result
- Discussion

# Introduction

- Annual prevalence rate of back pain is considerably higher in China than in the United States and most European countries.
- Studies in China have shown that annual prevalence rates of back pain among workers in certain occupations exceed 50%.
- China composes 20% of the world's population: absolute numbers!

# Biomedicine

- Rapid rise of biomedicine in formal settings of China's medical care: injection, antibiotics, immunization, etc.
- However, this is unlikely to result in a corresponding fall in its back pain problem.
- Few biomedical treatments of back pain have proven to be more effective than any other biomedical treatment or placebo.

# Acupuncture?

- More effective treatment: acupuncture?
- Outcomes of acupuncture appear to be better than outcomes for wait-list controls, biomedical treatment based on guidelines, and biomedical treatment as usual.
- Nevertheless, active acupuncture in these trials is not significantly better than “sham” acupuncture.

# Current Situation

- Several high-quality trials of acupuncture for back pain.
- Criticism: Not double-blinded, small effect size.
- They all have taken place in the West (USA and Germany).
- A lack of high-quality trials conducted in China,
- More specifically, no high-quality trials in China that pertain to acupuncture for back pain.

# Beliefs vs. Acupuncture

Is acupuncture an inert procedure, and do beliefs essentially constitute a placebo to which its outcomes may be attributed?

# Sociocultural Context

- The depth of TCM within the sociocultural context of a population of patients in China seeking care for back pain and the families of those patients.
- How to measure social and cultural context?
  - Re-conceptualize
  - What to measure?
  - Measurable



# Questions

- If beliefs about acupuncture are systematically different in China than in the West, do outcomes of acupuncture for back pain differ accordingly?
- Prior to conducting a trial of acupuncture for back pain in China, it would be advisable to ascertain whether beliefs with at least the potential to affect outcomes actually exist in the first place.
- Furthermore, patients return home and to families that may enhance or attenuate those beliefs.

# Study Aims

- To go beyond the narrowed focus of clinical trials and explore cultural and social contexts in which patients are situated.
- More specifically, to document particular beliefs and social relations that may affect the outcomes of acupuncture for back pain in China.

# Study Team

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- Yunxia Zuo, MD, PhD, Department of Anesthesiology, West China Hospital, Sichuan University, Sichuan, China.

# Patient Recruitment

- Two Outpatient Clinics at West China Hospital, Sichuan Province
  - Western-Style Pain Clinic, n=41
  - Acupuncture Clinic, n=45
  - N=86
- Administered Questionnaires Prior to First Episode of Care

# West China Hospital, Sichuan



# West China Hospital, Sichuan



# West China Hospital, Sichuan



# Selection Criteria

- A. Non-specific Back Pain
- B. Inclusion Criteria
  1. Ages 20-64 years
  2. Ability to speak Mandarin and read Chinese questionnaires
  3. New episode of care (no prior treatment for back pain at a clinic affiliated with West China Hospital within the past 3 months)
  4. Has telephone and willing to participate in telephone interview two days after the new episode of care
- C. Exclusion Criteria
  1. Sciatica (pain that radiates below the buttocks)
  2. Previous back surgery
  3. Possible/Probable back fracture
  4. If woman, pregnant or may be pregnant
  5. Cancer or spinal infection
  6. Severe co-morbid illness that may impair human consent or affect responses on questionnaires



# Level of Analysis



# Delineation of Variables

- Because acupuncture is a form of Traditional Chinese Medicine, questions inquired about the use of acupuncture (past five years) as well as TCM (past one year).
- We inquired about actual use (on the premise that “actions speak louder than words”). The action of seeking TCM care constitutes an indicator of beliefs.
- We specified particular features of variables in order to trigger respondents’ recollections and obtain comprehensive responses.




# Questionnaires

- Part of a larger survey on back pain treatment
- Recommendations on “the cross-cultural adaptation of self-report measures’
- Three stages of translation
  - Two independent Forward Translation (English to Chinese)
  - Two independent Backward Translation (Chinese to English)
  - Two more independent Reconciliation of Translations (Backward and Forward)

# Sample Question

In the past ONE year, apart from acupuncture, how frequently have you used Traditional Chinese Medicine of any type? This includes prescribed and non-prescribed Traditional Chinese soup medicine, preprocessed Chinese medicine (decoction), or external Chinese topical medicine. (Here we are interested in all other types of Chinese medicine, not including acupuncture.)

在过去的一年里除了针灸治疗，你使用过多少次其他类型的中医药治疗？包括处方或非处方汤药、中成药，外用中药霜膏剂等。（在此，我们感兴趣的是所有其它类型的中医药但不包括针灸治疗。）

<b>Not at all in the past year</b> 在过去一年没有接受过	 1
<b>Less than 50 times in the past year</b> 在过去一年少于50次	 2
<b>More than 50 times in the past year</b> 在过去一年大于50次	 3

# Dependent Variables

- Analysis 1: Used TCM for current back pain vs. not used TCM.
- Analysis 2: Used TCM for their current back pain *or* other conditions vs. not used.
- Logistic regression model

# Independent Variables

- Use of TCM for conditions other than their current back pain
- Visited the western-style Pain Clinic or Acupuncture Clinic
- Family use of TCM
- Age
- Sex

# Distinct Cultural Strand

- About one-half of all back pain patients had used TCM for their current back pain either alone or in combination with western medicine.
- Patients who had used TCM for other conditions besides their current back pain, as compared with those who had not, were greater than eight times more likely also to have used TCM for their current back pain.

# Syncretistic Beliefs

- However intellectually incompatible TCM may be with western medicine, we found that the use of one type of medicine does not preclude the use of the other.
- Despite the increasing and already prevalent use of western medicine in China, the majority of patients from the Pain Clinic as well as the Acupuncture Clinic had used TCM either for their current back pain or another recent condition.



# **TCM Beliefs: Anchored in a Definite Social Contest**

In another analysis, we found that patients whose families used TCM, as compared with patients whose families did not, were three and a half times more likely to have used TCM themselves for their current back pain or other conditions.

## **Why Cultural Context is to be Pre-Specified in Trials of Acupuncture: Conceptual Rationale that Underlies Empirical Findings**

- The potential of beliefs to affect health outcome is cogently demonstrated in another study that considered people of Chinese origin, although this one was conducted in the US (Phillips et al., 1993).
- If the potential to exert an influence on life-and-death inheres within such beliefs, they may have still more of a potential to influence the experience of pain and other outcomes of acupuncture treatment.

## Why Cultural Context is to be Pre-Specified in Trials of Acupuncture: Conceptual Rationale that Underlies Empirical Findings

*Close family members serve as a “looking glass self” (Cooley, 1909), i.e. a mirror of the self*



“Each to each a looking-glass  
Reflects the other that doth pass.”

Lewis Carroll, *Through the  
Looking Glass*

## **Cultural and Social Contexts of Acupuncture for Back Pain in China**

- Unless the focus of trials expands to include subgroups based on these variables, results may reflect heterogeneity of treatment effects, with the effects of unspecified subgroups averaged with each other (Kravitz et al., 2004).
- Results for subgroups may thereby be obscured, and acupuncture for back pain in China may be prematurely discredited.

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- Faculty members and graduate students from the West China School of Public Health, Sichuan University

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