Demonstrating the Effectiveness of Acupuncture on Non-Covered Illnesses

Bridging the cultural and research gap

http://theacupuncturecenters.com/specialties/

Acupuncture

Over 3,000 years, the Chinese have developed acupuncture as one of the primary tools to not only treat, but prevent, illnesses. Western medical professions are suspicious in the effectiveness of acupuncture, because its origins stem from ancient China, and not modern science.

Acupuncture is the practice of penetrating numerous needles into specific points on the human body, with the intention of stimulating the body to heal itself.

Recent advancements in the neurophysiology of pain as well as developments in realizing the interconnectedness of the human body has allowed for increasing acceptance in the west.

http://altered-states.net/barry/newsletter344/acupuncturechart.jpg

http://www.jadeacupuncture.com/chart_ear.jpg

http://www.chiropractictools.com/graphics/acupuncture_models.jpg

Goals

Increase awareness of acupuncture in American society.

Analyze traditional Chinese medicine from a western research perspective.

Demonstrate the effectiveness of acupuncture on symptoms where western medicine is ineffective.

Open a dialog with insurance companies to increase the number of illnesses for which acupuncture treatment is covered.

Course Website: mathresearch.breckschool.org

Data Analysis

Analyzing patient records at AAAOM will help demonstrate the effectiveness of acupuncture treatment. Gender, ethnicity, knowledge about acupuncture, and date of birth are recorded anonymously. Patient symptoms, previous western treatment, level of infirmity, and duration of disease are important baseline references, also recorded anonymously.

Symptoms are used in western medicine to diagnose illnesses, while in Chinese medicine they're used to diagnose underlying imbalances. As a result, the initial complaint may not be the ultimate target for treatment.

Using data-mining software, I will find the most common reasons patients choose AAAOM. In addition to displaying demographic information visually, I am looking for meaningful correlations between the data. I am particularly interested in how initial complaints are related to final treatments, the level of relief provided by acupuncture treatment, and "surprises" that prompt further investigation.

Western Treatment
It is important to record and analyze whether people tried western treatment, and why they turned to acupuncture. This reflects on the accuracy of western diagnosis and effectiveness of western treatment as well as a patient's understanding of acupuncture.

Symptoms
Symptoms are why people seek acupuncture treatment. Analyzing this information will lead to insight into common reasons for choosing acupuncture (e.g. pain, neurological problems, insomnia).

Effectiveness
Most important is the potential curative effect of acupuncture. Practitioner comments provide another opportunity for data mining and analysis, giving a more human face to the data. Taken holistically, this will shine light on acupuncture's effectiveness.

Research Mentor

Changzhen Gong, Ph.D.

- **President of the American Academy of Acupuncture and Oriental Medicine (AAAOM)**
- **Executive Director of TCM Health Center**

Dr. Gong has served as the chair of the Continuing Education Committee of the Acupuncture Association of Minnesota.

My name is Ruskin Li, a senior at Breck school in Golden Valley, Minnesota, and a member of Breck's Community-Based Research in Mathematics program. As an international student, I am always looking for ways to connect and build bridges between my native Chinese and my adopted American culture. This project provides me with a unique opportunity to analyze the "magic" treatment of acupuncture from a western research perspective so that acupuncture might become more widely received in the United States.

Community-Based Research in Mathematics

Mission: To incorporate mathematics into a broader community by partnering with organizations to explore real-life problems with an emphasis on service-learning and social justice.