

A COMPARISON OF CLOCKWISE, COUNTERCLOCKWISE, AND
EVEN NEEDLE ROTATION IN MODIFYING THE
PERCEPTION OF PAINFUL STIMULI

A Capstone Project
Presented to the
Doctoral Faculty of
Pacific College of Oriental Medicine

In Partial Fulfillment
of the Requirements for the Degree of
Doctor of Acupuncture and Oriental Medicine

by
Leslie Ann McCoy, L.Ac.

San Diego, 2009

ABSTRACT

The Problem: Rotation as a needle technique may improve clinical efficacy, but was overlooked by the acupuncture community because the theoretical foundation was poorly understood. This study was designed to investigate the theoretical foundation and application of needle rotation and determine if there was, in fact, any clinical difference between clockwise rotation, counterclockwise rotation, and even rotation in the treatment of pain.

Method: The research design used to study rotational needle technique was a randomized pretest posttest design. In this study, each subject was randomly assigned to a counterclockwise needle rotation treatment, a clockwise needle rotation treatment, or an even needle rotation treatment. A pretest was performed on each subject prior to each treatment. That is, algometric pressure pain threshold (PPT) measurements were obtained at the subject's ST-3 acupoint. Then, each subject had the treatment applied at the acupoint LI-4. After the application of the treatment, all subjects again had their algometric PPT's retested. For this study, the null hypothesis is as follows: NH1: There is no significant difference ($p > .05$) as measured by pressure pain threshold between the counterclockwise rotation technique, clockwise rotation technique and even technique.

Findings: All groups demonstrated a rising trend in PPT, with no crossovers. The results of this study suggest that while needle rotation raises the pressure pain

threshold, there is no significant difference ($p > .05$) in the response to direction of needle rotation when analyzing the results of men and women concurrently. However, when analyzing separately, female subjects experienced a statistically significant ($p < .05$) increase in both the clockwise and counterclockwise groups, but not in the even group. In addition, it appears that the men who participated in the study have a higher pressure pain threshold (39-45%) than women. Besides the main study, the cross-sort analyses of handedness, age, and body mass index all show a rising trend in PPT, with no crossovers.