A major technology university has scientifically measured unique brain responses to manual acupuncture stimulation. De qi, sensations induced by specific manual needle stimulation techniques, is posited as having therapeutic effects within the Traditional Chinese Medicine (TCM) system and was the focus of the study. De qi is a combination of bodily sensations induced by acupuncture needling techniques combined with physiological responses to the stimulation. The researchers note that de qi sensation is often described as dull, heavy, deep pressure, pulling, numb, aching, spreading, radiating, electrical, refreshing, relieving and tingling.

In this new study conducted at the Huazhong University of Science and Technology, researchers measured de qi’s relationship to changes in blood flow, tissue displacement, myoelectricity and brain MRI signals. As a result, the research team notes that they have demonstrated measurable and repeatable “intrinsic change(s) of (the) human body” induced by de qi during acupuncture. The team added that the “study demonstrated that de qi elicited significant response(s) to acupuncture in the specific brain regions….”

In a related study, researchers note that achieving de qi at acupuncture points elicits distinctly different cortical responses than at non-acupuncture points. The researchers suggest that these findings point to de qi having a different effect on the central nervous system dependent on the acupuncture points chosen. Specific acupuncture points demonstrate a consistent and unique ability to stimulate specific brain regions upon de qi stimulation. By contrast, non-acupuncture points did not induce unique responses.

Another investigation of acupuncture connects modern research with the traditional inducement of deqi. Researchers from the Beijing University of Chinese Medicine, Medimar International Hospital and the European Foundation of TCM performed a meta-analysis of the medical implications of de qi. The findings suggest a direct correlation between ancient acupuncture techniques and improved positive patient outcomes.

These investigations connect ancient TCM teachings dating back to the Nei Jing Su Wen with modern scientific findings. Eliciting de qi responses was posited as having medically beneficial effects over 1,000 years ago. Now, modern scientific equipment allows researchers to test this theory. These initial investigations show that de qi is linked to clinically positive patient outcomes.
References:
Tian, Dai-Shi, Jin Xiong, Qing Pan, Fang Liu, Lu Wang, Sha-Bei Xu, Guang-Ying Huang, and Wei Wang. "De Qi, a Threshold of the Stimulus Intensity, Elicits the Specific Response of Acupoints and Intrinsic Change of Human Brain to Acupuncture." Evidence-Based Complementary and Alternative Medicine 2014 (2014).

Zhu, Shi-Peng, Li Luo, Ling Zhang, Song-Xi Shen, Xiao-Xuan Ren, Meng-Wei Guo, Jia-Min Yang et al. "Acupuncture DE-qi: from Characterization to Underlying Mechanism."

Chen, Sheng, Shengnan Guo, Federico Marmori, Yanping Wang, Qi Zhao, Baokai Wang, Eunhae Ha et al. "Appraisal of the De qi Concept among Contemporary Chinese Acupuncturists."